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THE IRISH BUILDER.

Architectural, Archaeological, Engineering, Sanitary,
Arts and Handicrafts.

Past—Present—Future.

Labor omnia vincit.



NOT taking a glance backward during the past year, we have some reason for congratulation for work achieved, and for work projected, and now in process of execution. The field we entered exactly thirteen years ago, in the Irish architectural and building interest, was unoccupied in this city by one publication; and though only still occupied by one professional journal, yet by our labours we have led non-professional journals to lend betimes useful service in directing public attention to our neglected industrial resources, and specially to the interests of Irish architecture and the kindred arts. The cause we have advocated has gradually, though slowly, assumed shape and form, and extended itself throughout the island, until all industrial, art, and manufacturing questions merged into one great whole and undivided national interest. Outside the region of politics our work was mapped out, and independently, and irrespective of sect or party, we have pursued an even and consistent course. It is not, however, our intention to review the incidents of thirteen chequered years, but to briefly touch upon the work accomplished during the past year, and then see what remains to be done in the future before us.

Limited as are the means for accomplishing great reforms or works of a public nature in Ireland, yet withal, this country, during the past year, has given proofs to the world of substantial, material progress in various matters. Harbours have been improved at many of our maritime ports; public and ecclesiastical buildings to a large extent have been increased by being either completed or by being commenced; towns and cities have added to their improvements and requisites, north, south, east, and west; parks have been opened or projected; sewerage and drainage matters have received a great deal of attention; schools of art have been established or remodelled; commerce has received an impetus; and trade in general has been greatly improved by the starting of new industrial pursuits, or in the extension of existing ones. It is not necessary to particularize names and places in every instance, as the enumeration would be rather tedious; sufficient it is to know that the facts are undeniable, and the results can be seen in an increase of the national industrial prosperity of the kingdom.

Belfast has added to her public buildings, in a corporate and domestic way, on a large scale,—in warehouses for her staple trade, in theatres for amusement and the representation of the drama, in many private dwellings, of an improved character; in new

branches of trade, in harbour improvements, and slightly in sanitary matters. Many other of the chief towns of Ulster as well as Belfast have also made marked progress in various ways. In the south of Ireland—in Cork, Waterford, and Limerick—much improvement is also manifest. The Harbour Commissioners have completed some useful works in connection with the navigation of the Suir, and the Corporation of Waterford are improving and moving in the direction of sanitary reform. The shipbuilding interest and the steam communication in connection with the south-west of England, *via* Milford Haven, have been also attracting attention, for some time past, on the part of the merchants of Waterford. Much, however, remains to be done in the city, which we hope to see commenced in the present year. In Cork and at the port of Queenstown, building and harbour improvements are proceeding; and at the convict settlements of Spike Island and Haulbowline, works of defence are being constructed on the part of the Government. The pretty watering-place of Queenstown is rapidly extending in population and wealth, and a new Catholic cathedral is in course of erection.

Church-building during the past year has proceeded apace in Cork, with some needed town improvements on both sides of the Lee. Sanitary matters in Cork are behindhand, as well as in other southern towns and cities. At Cashel of the Kings our venerable national monuments have been receiving attention; and at Thurles the Archbishop is commendably engaged in completing and adding to the beauty of the Cathedral. In the matter of church-building and improvements, Tipperary, Clare, Kerry, and Limerick have also accomplished noteworthy work; but in matters of drainage and sewerage, we are sorry to say, they are still behindhand. In the West of Ireland, Galway, Sligo, and Mayo are doing some useful work. In Sligo a new town hall is in course of erection; and the Catholic population are erecting a new cathedral, which will be an imposing and handsome structure, when completed. Galway county is not behind in church-building. At Westport the Marquis of Sligo is erecting a new Protestant church, and in the regions of Connemara, hammer and trowel, and spade and pick are busy. At Leenane and its neighbourhood, on to the Pass of Kylemore, and in the heart of it Mr. Mitchell Henry, the M.P. for Galway, is active in projects. At one end of the Pass the worthy representative is building a castellated residence for himself. During the past year Mr. Henry had artizans employed from Paris, London, and Dublin. No expense has been spared in the construction and decoration of the baronial residence. Dublin granite, Ballynahinch marble and Caen stone are utilized in its erection. Added to this Mr. Henry is engaged in solving what may be termed a

wonderful horticultural problem in the wilds of Galway. Gardening operations on a gigantic scale have been carried out. Twenty-one houses have been erected from designs of Mr. Garnier, roofed by Cranston, of Birmingham. The garden covers more than six acres, and is enclosed by a “stepped” wall. The form of the garden is a parallelogram, and here are to be seen vineries, pinneries, orangeries, tropical fruit-houses, houses for plants of commerce, peach-houses, detached houses for propagating and exhibition, houses for melons, cucumbers, &c. Terraces and slopes are laid out with artistic arrangements of the highest order in gardening operation, and flowers and shrubs of all kinds are to be found here. There are forcing-houses also for mushrooms, seakale, rhubarb, &c., and the newest improvements are carried out of the hot-air chambers in connection with the cultivation. Mr. Henry is also engaged in arboriculture, and has been laying down upwards of 30,000 trees a-year.

This is good work for the wilds of Connaught and great progress for the welfare of Ireland. Out and about the town of Galway improvements have taken place. The hotels have of late improved much, and some new buildings have been added. The harbour needs to get another waking-up, for it is a pity that its commercial importance remains so much neglected, considering its position in respect to transatlantic communication. At Cong, the Abbey has recently received attention, and the historic ruins are not neglected by Sir Arthur Guinness. Respecting northern towns, while mentioning Belfast, we could have instanced harbour and building improvements at Newry, Derry, Carrickfergus, and other ports, and town improvements in many of the inland places in the northern province—in Armagh, Cavan, Monaghan, Fermanagh, and Donegal; but we must perforce be content in mentioning these places at present.

In the province of Connaught—in Leitrim, Roscommon, and Mayo, notice of improvements which have taken place recently, must be passed over with simple mention.

In Dublin and the several counties of the province of Leinster, some very marked and decided public improvements have taken place during the past year. Here in the capital particularly improvement has been manifest, though sanitary matters are still a crying evil.

Kilkenny, Wexford, Wicklow, Kildare, Longford, Carlow, have through their several town commissioners been fairly active in some matters; and in the chief towns of Louth, Meath, Westmeath, King and Queen's Counties, the town commissioners and other local bodies have been vigilant of late, some of them notably, in sanitary affairs. In several of the chief towns of Leinster throughout the past year we have noticed and recorded some important buildings. We hope that each and all will have reason to rejoice

at the success of their improvements at the end of 1872.

Dublin, as the capital, has reason both to rejoice and regret. The projects of her Corporation have been grand to a certain extent, but they have lacked sufficient vitality, and some of the more important of them have suffered from bad organization and management on the part of those to whom they were entrusted. Port and harbour improvements have been going on for the last year, which, when completed, will be a great benefit to the commercial interests of this city. A Dublin Main Drainage Bill has been passed for the carrying out of a long-desired want, but we are sorry to have to record that if the work be carried out according to the proposed scheme, it will fall miserably short of the requirements needed. Simple drainage and sewerage is one thing, but the utilisation of the sewage of this important city is another, and hinging to this is the still more important consideration of the public health. We will, however, have occasion hereafter to discuss this matter at greater length, as exigencies may demand. The purification of the Liffey and the cleansing of our chief city calls for most serious attention on the part of the inhabitants, rich and poor. The rebuilding and improvement of Carlisle Bridge is under weigh; but, strange to say, Essex Bridge has secured first care, notwithstanding that the Corporation have been for years committed to the performance of the first-named most necessary public improvement.

Some excellent public buildings and warehouses have been erected in the city during the past year, and also some commendable ecclesiastical structures have been completed, begun, and others are in course of completion. We had an agricultural show, and an exhibition of agricultural implements, and articles connected therewith, during the summer, which effected some good for the interests concerned. Though neither a full nor even a moderately large exhibition, it has been practically serviceable and suggestive of future good. A slight disagreement between employers and employed in the building, and one or two other branches outside, took place in Dublin, but, after a few weeks' duration, matters were amicably settled.

Trade in all branches throughout the late year has been passably good, and an increase to a large extent has taken place in our exports and imports. Tramways and railway conjunctions, for the facilitation of the passenger and goods traffic between the different lines of railway and the port of Dublin, have also been projected in the last year, and the work will be soon commenced.

The introduction of the new asphalt pavement into Dublin, and the laying of portions of our principal thoroughfares with the material has been accomplished, and we have no doubt, if the work is properly executed, it will be a decided benefit to the passenger and vehicular traffic of the city.

In the last days of the old year an important proposal was announced by Sir Arthur Guinness, and his brother, Edward Cecil Guinness. The proposal, as an accepted fact, is now before the public, and the work it involves in process of organization—the grant of the Exhibition Palace to the city, and the making good of all the expenses, if the great project of an Irish Exhibition of Arts, Industries, and Manufactures should fail by any mishap not to prove remunerative.

This is a noble gift and a noble undertaking, and deserves every encouragement on the part of the nobility, gentry, and the working classes. The interests of the latter class have been considered by the munificent proposers and donors. A permanent exhibition in the capital of Ireland of Irish arts, manufactures, and industries will be fraught with important benefits to the present and future generations, and the floral gardens attached will help to lift up the minds of the people to more ennobling thoughts. Flowers are beautiful, and the true lover of flowers and gardening cannot be impure or radically bad.

Looking at the past and the present, all of us can see marked and steady improvement taking place both in the agricultural and manufacturing interests. Some of our staple trades are growing stronger, and some recently-introduced branches of trade are progressing fairly. Among these may be enumerated marble working, glass silvering and ecclesiastical work, mechanics' tools and agricultural implement making, iron founding, bottle and glass making, carpet making, silk and poplin; sawing, planing, and moulding mills; linen manufacture, perfumery, paper making, the woollen trade, envelope making; and to these may be added the brewing and the distilling trades.

The Future, with all its deep and profoundly serious questions, is before us, and each of us will fail in our duty to our fellow-man if we do not assist, as far as lies within our scope, in uniting ourselves with one another for the general good of society, and particularly for the moral and social elevation of our humblest fellow-creatures. The war of parties and sects must cease, and the work of the future be whole labour for the common weal.

Ireland needs for her people an enlargement of educational facilities, primary and technical, that our youth may not grow up in ignorance, and our manhood be unskilled and incapable. Education and sanitary reform must be so enforced that dirt and disease may be stamped out, and public health permanently established in this city and throughout the island. The forthcoming Parliament must devote a portion of the session to sanitary legislation, for the subject cannot brook further delay. Dublin is far behind, and her Municipal Council strangely and culpably at fault in their neglect of the public health, and the bestowing of a proper attention to the dwellings of our people,—hundreds of them, scattered over the city, being little less than chronic fever nests of disease. The creed that George Godwin has persistently, earnestly, and solemnly preached for the last quarter of a century in the pages of the *Builder* is the only saving creed for the salvation of our souls as well as our bodies. Cleanliness is next to godliness, for filth has very close relationship with crime.

The prospects of architecture, building, and engineering in this country look more bright than when we began our labours. An Institute of Irish Architects is in existence, which has effected good, and is capable, with judicious management, to be highly serviceable to the building interests in Ireland. The Royal Irish Academy, the Royal Historical and Archæological Society, the Royal Hibernian Academy, the Royal Dublin Society, and other native societies, continue to exist, and are showing fresh signs of renewed vigour. We trust each and all of them will use their influence and

afford their assistance to the forthcoming Irish Exhibition. The press of this city—the *Freeman*, *Irish Times*, and *Morning Mail*—have lately devoted a series of articles to giving an account of some local industrial pursuits, trades, or manufactures in this city. They have thus performed useful labour of a most commendable kind. We would, in the interest of citizens, bespeak their future aid in the advocacy of Sanitary Reform, and the opening of the public squares of Dublin for the people.

Concerning ourselves we do not desire to speak much. Our past efforts and the results must be looked for elsewhere. What we have written in our latest volume may be read, but of the benefits achieved for the public good we will leave it to some other pen to say. Our efforts for the future in every domain, if not redoubled, will not at all events be relaxed. With our professional co-labourers across Channel we wish to uphold friendly and courteous exchange of thought, feeling, and interest, with all due acknowledgments. Though specially representing native interests, the architectural and every cognate interest abroad will not be ignored by us. Genius and talent, wherever located—whether in England, Scotland, in Paris, Berlin or Rome, the western world, or at the Antipodes—is one in name, and will meet with favourable recognition at our hands.

The Past is passed, the Present is passing, and the Future is swiftly approaching; so it behoves us, in every station of life, to be up and doing, remembering the golden maxim, *Labor omnia vincit*—"Labour conquers everything."

THE EDITOR.

IRISH BUILDER Office,
January 1st, 1872.

SOCIAL AND SANITARY REFORM.

THE cause of sanitary reform has, during the last days of the old year, received a powerful impetus through the serious illness of the Prince of Wales. The effect of this feeling cannot be realised to one-half the extent here as in England. We sincerely trust that the good achieved will not be temporary but lasting, and growing as it lasts. We confess, however, to slight misgivings that the alarm sounded across Channel by the press, and re-echoed here to some extent, will be forgotten, and that a more terrible and realistic crisis must culminate in the form of devastating pestilence, before our somnolent general and local city and town authorities bestir themselves, or the inhabitants individually "put their homes in order."

We have been warned for years, and had each of us played with or lifted an open cask of gunpowder with a lighted pipe or a cigar in our mouths, or allowed our children to play at squibs and crackers in a powder loft, the danger would not have been much greater than what we have run for years by our conscious sanitary neglect of the most frightful evils, the effects of which are not only cursing and branding our offspring and race, but scourging our living with a worse than death punishment. The wealthy must not any more dream of security, or an escape from the most fatal diseases. Whether they take the precaution necessary as means of prevention in connection with their own homes or not, the fact to be borne in mind is this—what is the condition of the homes of the

poor? If their condition be unsafe, can our own state be considered inviolate and secure? Whoever he be who fancies that his isolation as to home and surroundings cuts him off from external attack, that man is a fool, as far as his sanitary knowledge is concerned, however wise he may be on other topics. Few men, unless they turn hermits, can sever themselves from all contact with this busy work-a-day world. All of us devoted to a business life must breathe the same town or city air; we cannot as yet filter it as it passes into our lungs; vitiated or poisonous we must perforce breathe it that we may live, though at any moment through the day one unlucky inspiration may sow the seeds of disease, to end perchance in death. We may possibly never succeed in entirely ridding over-crowded towns and cities of the germs of preventible diseases, but by knowledge, care, and due attention we may so contract the danger, that the danger may be risked with a very remote fear of dread. As a first step, laws must be acted and penalties rigidly enforced wherever their infringement takes place. Corporate bodies, invested with powers to preserve the public health, must be held amenable to the legislature whenever through negligence they fail in their obvious duties. The duties of landlords and tenants are clearly definable and specific, and these duties must not be allowed to be neglected or cast aside through any pretence. Imperfect building and defective house and public drainage are two great evils and constant sources of danger. Whatever excuse may exist as to our building and drainage operations in the past, for the work of the future in this line no tangible excuse can be allowed to exist; and that no excuse may exist, the authorities concerned must be held answerable for the performance of the work needed. Ill-planned houses that utterly ignore all the conditions of comfort and health in their constructive details and positions, should be condemned at once. In fact, all new house property wherever erecting, in the future should, before being inhabited, be examined by a specially-appointed functionary, who has a practical knowledge of the matters he is called on to judge. The drainage should be carefully looked after; the size of the drains, their course, junction, and outfall, and other matters that would suggest themselves to a careful examiner engaged in the public interest. Scamped work in all branches of the building trade is perpetrated to an enormous extent, and is, of course, the source of ever-growing, frightful evils.

Life can never be enjoyable while endangered, and life without health is not worth possessing. Zymotic diseases, such as fever, cholera, small-pox, and several other forms of plagues or epidemics, are not to be classed as accidents. A runaway horse, knocking a man down in the street, and trampling out his brains, is a casualty that cannot be foreseen; but there are thousands of deaths yearly by which the world is robbed of the services of useful and able men, that could clearly be prevented. There would be many less hapless husbands, wives, and orphans in work-houses and asylums scattered through the kingdom if the public health were attended to. Dirt engenders or favours disease, and typhus, small-pox, and other kindred plagues swoop men down in the prime of life.

Once more we appeal earnestly to the common sense and self-respect of every honest

member of society, cleric and layman, to aid in the blessed work of sanitary reform. Let the clergyman in the pulpit preach the laws of health, public and personal, to his congregation, and in his daily visitations to the homes of his parishioners, the churchman, no matter of what denomination, too often in his zeal for building churches and schools, neglects to draw the attention of his flock to what is of equal, perhaps of more importance—the proper housing of the people. Let him consider seriously his vocation, and not forget that the condition of many of the homes of those to whom he is preaching religion, are directly provocative to acts of immorality and crime. Men, women, and children cannot huddle together, and live under conditions little removed from those of the beasts of the field. Morality cannot exist, or, at all events, cannot be preserved, except in a very doubtful way, where the bounds of decency are infringed. A certain degree of separation of the family group—a certain amount of privacy—in domestic transactions is emphatically necessary in the humblest home. How can morals grow, virtue and modesty be strengthened, or health be maintained in homes of dirt and noisome smells; where eating, drinking, washing, and sleeping take place, as often it does, in one room, or, at best, in the open and adjoining one? It is highly meritorious to strive and save souls, but where the bodies of the people are uncared for, the cure of souls is doubtful work. We preach no heresy or false doctrine—we ventilate views which are sound, and truths that are irrefragable. In God's name, then, let them be put into practice, publicly and privately, and the salvation of the people, by well-established laws of public health, will be certain.

NOTES ON THE ECCLESIASTICAL ARCHITECTURE OF IRELAND.

BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A. SCOT.

THE subject of our national architecture has been most unaccountably neglected both by members of the profession and antiquaries, most notably by the former, whose special province it is; while it is equally patent that the few who have ventured on the subject have treated it so sparingly and superficially, that the general public have derived but slender information from their attempts. It would, perhaps, be invidious in me to point out in detail the errors and deficiencies of such writers, several of whom have appeared within the present generation. I do not now allude to such authors as the late Dr. Petrie and Marcus Keane, whose works having been written in support of certain theories, dealt with Irish architecture merely so far as it supported these theories; yet which are exceedingly valuable for many very accurate delineations of portions and details of several of our early buildings. I propose in some degree to supply past omissions by attempting to classify the different periods of our national architecture, as far as practicable, by reference to existing examples, and to such historical notices as are accessible. My present intention is to deal only with our ecclesiastical architecture, leaving the civil and military to some future occasion.

The claims of Ireland to the knowledge of erecting buildings of stone and cement previous to the 12th century, has been disputed by many writers. Sir James Ware, an author of great authority and deserved reputation, has stated it as his opinion, that the Irish had no cemented structures before the 12th century, and appears to ground his views upon a passage in St. Bernard's Life of Malachy O'Morgair; the passage has been

so often quoted that I shall not here reproduce it. The substance of it is this—that Malachy, who died about A.D. 1148, towards the latter end of his life erected a church of stone at Bangor, in the Co. Down, much to the astonishment of the natives, who looked upon it as a novelty, "because such buildings were never seen before in that country;" he further quotes another passage from the same author to the effect, "that this Malachy had some years before built a chappel in the same place, made indeed of planed timber, but well jointed and compactly put together, and for a *Scottish* (i.e., an *Irish*) work, elegant enough."—(Ware; *Antiq. of Ireland*, by Harris, pp. 181,2). Dr. Molyneux, bitten by his Danish mania, asserts that these sea rovers were "the earliest artificers in masonry in Ireland," and that they erected the round towers (*Nat. Hist. Ir.*, p. 210). Dr. Ledwich, an able and acute but rather prejudiced writer, follows the feebly-sustained opinions of Molyneux, and boldly states, "From every evidence supplied by antiquity, it is certain the Irish had neither domestic edifices, nor religious structures of lime and stone, antecedent to the great northern invasion of the 9th century."—(*Antiquities of Ireland*, p. 142.) Ledwich, as usual, is profuse of assertion, but sparing of argument and facts; he maintains that St. Molua's stone-roofed church at Killaloe, and St. Dolough's, near Dublin, were works of the Ostmen, but he does not inform us where they learned the art of constructing them, seeing that no such buildings have been found in their native countries; as we know that most of the ancient as well as modern churches in Norway and Sweden were built of wood, and that neither in these countries, nor in Denmark, are there any buildings in stone older than the 14th century. Dr. Lanigan, who ought to have known better, follows in the wake of Ledwich, and doubts the ability of the Irish to erect stone buildings prior to the 12th century. He writes:—"Prior to those of the 12th century we find very few monuments of ecclesiastical architecture in Ireland. This is not to be wondered at, because the general fashion of the country was to erect their buildings of wood, a fashion which in great part continues to this day in several parts of Europe. As consequently their churches also were usually built of wood, it cannot be expected that there should be any remains of such churches at present."—(Lanigan's *Ecol. Hist.*, vol. iv., pp. 391,2.) The writer who penned these lines must have been lamentably ignorant of his own country, and of the remains of ancient stone buildings still existing in it, as I shall presently show. This uniformity of opinion in the above quoted writers appears to be the result not of independent observation, or of investigation into the ancient monuments of our island, but from a slavish adherence to the authority of writers preceding them; namely, certain lives of saints, and statements of ecclesiastical authors of an early age; as, for instance, Palladius, the precursor of St. Patrick, is stated to have erected three wooden oratories (*Usser Primordia*, p. 737). The same authority states that St. Patrick's first church was erected at Saul, Co. Down, and that it was called Sabhal Patrick, or Patrick's Barn, and upon this name an argument has been founded, that it was so called because it was built in the form and of the usual materials of a barn. Again, a passage in Tirechan's Annotations on the Life of St. Patrick (Book of Armagh) states that the saint going to a locality called Foirrgea, to settle some dispute about the division of an inheritance, "built there a quadrangular church of earth, as wood was not nigh hand." Usher gives us a passage from the Life of St. Monenna, compiled by Concubran, in which is a statement that she caused to be erected a monastery of planed wood, after the manner of the nations of the Scots, who were not in the habit of building stone walls, or of having them built (*Primordia*, p. 737). Again, we are informed by the Venerable Bede that when St. Finan was erecting his monastery at Lindisfarne, he built it after the manner

of the Scots—of wood. “In the meantime Bishop Aidan being dead, Finan who was ordained and sent by the Scots (*i.e.*, the Irish), succeeded him in the bishopric, and built a church in the Isle of Lindisfarne, the episcopal see; nevertheless, after the manner of the Scots he made it not of stone, but of hewn oak, and covered it with reeds.”—(Bede, b. iii., c. 25.) These, and the passage from St. Bernard, already alluded to, include all the documentary evidence as far as I can ascertain, in favour of the theory that the Gaedhil had no structures of stone before the 12th century; as to their value as evidence, we may at once admit that in the infancy of the church in Ireland it is more than probable that many of their sacred edifices were constructed of wood; it was, no doubt, a readier and cheaper material, and suited best the means and exigencies of a young and struggling church, particularly in localities where stone was scarce and difficult to quarry. Many churches in our colonies and in the Western States of America have been built of wood; a record of this fact may be preserved many hundreds of years hence, and the same inference may then be drawn with as much foundation of truth. That the Gaedhil erected stone buildings prior to the 12th century, we can show not only by documentary evidence, but by reference to the structures themselves.

The term *Damhliag* is very constantly employed by our annalists and hagiologists, and is rendered stone church by Dr. O'Donovan, is so adopted by Dr. Petrie, and all other writers on Gaedhelic ecclesiology. In the *Annals of Ulster*, at A.D. 839, we have a reference to the destruction of the ecclesiastical buildings at Ardmagh, among which is mentioned the *great church*, there called a *damhliag*; so that at this date we find important stone buildings in that episcopal city. *Ann. Four Mast.*, A.D. 924:—“Colman son of Ailell, Abbot of Clonard and Clonmac-nois, a bishop and wise doctor, died. It was by him the stone church of Clonmacnois was built.” The same authority, at A.D. 949, records the burning of the stone church of Gallen, King's County, by the Danes. The *Annals of Inisfallen* record the erection of the following stone churches:—at A.D. 1002, that of Armagh; 1028, that of Clonfert; 1033, Cashel; 1038, Fenabore; 1041, Emly; 1044, Aghadoe. Many more such notices could be adduced, but the above will be sufficient to prove the existence of stone-built churches two centuries before the time of Malachy O'Morgair. But we may go even farther back than this, for we find in Harris's edition of Ware's *Antiquities*, p. 137, a quotation from a very ancient MS. Office of St. Cieran of Duleek, in Meath, as follows:—“That St. Kenan built a Church of Stone in this Place, and that from thence it took its Name of *Damleugh*, for that before this Time the Churches of Ireland were built of Wattles and Boards.” Now, St. Cieran was a contemporary of St. Patrick, was consecrated by him, and died A.D. 490; that the tradition of the erection of the first permanent stone church in Ireland should have been preserved and handed down to after times is only reasonable to expect, and it is quite probable that this was really the first durable sacred edifice erected by the infant church in Ireland. About the same period seven other churches were built under the directions of our patron saint in the same locality, then known as the plain of Bregia, so called after a Milesian chief, Breogu. That St. Patrick entertained in his train certain masons or builders, is recorded by a very trustworthy writer, Flann of the Monastery of Bute, *i.e.*, Monasterboice; he was not only a poet but a historian. O'Reilly, in his *Irish Writers*, gives a list of fourteen historical poems by him. He died A.D. 1056, as is recorded in the *Ann. Four Mast.*:—“Flann Manistreach, lector of Mainistir-Buithe, the paragon of the Gaedhil, in wisdom, literature, history, poetry, and science, died.” In the *Book of Lecain*, an ancient vellum MS. in the Lib. Trin. Coll. Dublin, is to be found a poem by the above-named writer, in which he enu-

rates the persons who composed the household of Patrick, amongst whom he mentions:

“His three masons, good was their intelligence,
Caeman, Cruithneach, Luchraid strong;
They made damliags first
In Erin; eminent their history.”

Now, admitting that the names of these masons were only traditional at the period Flann lived in, it is quite evident that from the antiquity of the buildings existing around him, and from the historic records available in his time, he considered himself justified in handing down a fact sustained by those records; and that he considered it reasonable and necessary that our patron saint should have the services of three competent builders to superintend the erection of his churches, and that it was his belief that churches of stone were erected in the Patrician age. We have in addition some evidence that carries the art of building in stone back to an earlier date. It is a quotation from the remarkable genealogical compilation of Duaid-mac-Firbis, and is to be found in Dr. O'Curry's well-known *Lectures*, p. 222, as follows:—

“Goll of Clogher was stone-builder to Nadfrach (king of Munster, at the close of the fourth century). Casruba was the stone-builder of Allac (Ailinn). Rengin, or Rigrin and Gabhlán, the son of Ua Garbh, were the stone-builders of Aileach.”

Ireland, no doubt, from continental intercourse, and subsequently from the advent of her Norman conquerors, improved her architecture very considerably, importing the styles prevalent in other European countries at the various periods of architectural fashion; but long previous to that, the Gaedhil possessed a system of design and building peculiar to themselves, and, I might almost say, indigenous to the country, unless, indeed, the germs of it were brought from other lands by her early colonists, for which surmise there is in truth reasonable foundation, as we shall hereafter see. This system of Primitive Architecture—as I propose to class it—had its origin far back in the pagan age, and when the Christian faith was introduced, their oratories and churches were erected by native masons and builders; and thus we find that one of the most ancient structures in our island—the great tumulus of New Grange—contains within its bosom masonry-built chambers domed with stone, of a rude character, it is true, and uncemented, but well bonded substantial work, that has stood the enormous crushing weight of the superincumbent mountain of earth and stones for over 2,500 years at least. Many of the stones in these chambers are sculptured in remarkably good taste. The Grianon of Aileach is another specimen of the early architecture of the Irish. It is situated on the summit of a hill, close to the shores of Lough Swilly, in the Co. Donegal; it consists of three concentric ramparts of earth and stones, enclosing in the centre a Cashel, or stone-built fort, the wall of which is much dilapidated. The internal diameter is 77 ft. 6 in.; the enclosing wall, in its present state, averages 6 ft. in height, and from 12 to 15 ft. in thickness. From the mass of fallen masonry at both sides of the wall, Dr. Petrie (to whom I am indebted for these notes) conjectures that it must have been originally over double its present altitude. He thus describes it:—“At the height of about 5 ft. from the base, on the interior face of the wall, the thickness is diminished about 2 ft. 6 in. by a terrace, the ascent to which was by staircases or flights of steps, increasing in breadth as they ascend, and situated at each side, but at unequal distances from the gateway On each side of the entrance gateway there are galleries within the thickness of the wall, extending in length to one-half its entire circuit, and terminating at its northern and southern points. These galleries are 5 ft. high, and have sloping sides, being 2 ft. 2 in. wide at bottom, and 1 ft. 11 in. at top; they are covered by large stones laid horizontally.”—(*Ordnance Survey of Londonderry*, vol. i., pp. 217, 218.) The jambs of the gateway still remain, and show it to have been about

6 ft. in height, 4 ft. 3 in. in width at bottom, and 4 ft. at top; it was lintelled with large slabs of stone, one of which lies in the area, 6 ft. 6 in. in length, and 1 ft. 7 in. in breadth. The jamb-stones of the gateway were dressed, and the masonry is thus described in the work already quoted from:—“The stones, which are of the common grey schist of the district, are of polygonal forms, adjusted to fit each other, and wholly uncemented. They average about 2 ft. in length, and it is quite evident that they have been in many parts squared with the hammer, but not chiselled. This, as already stated, is most apparent in the angles, &c., of the entrance passage.” A plan of the Cashel and an elevation of the gateway—the lintel restored—is given from the above-recited work.

The antiquity of this building cannot be disputed; the learned author of the *Section of Antiquities in the Ord. Sur.* remarks of it that “the Grianon of Aileach was one of the most remarkable and important works of its kind ever erected by the ancient Irish—the palace of the northern Irish kings, from the earliest age of historic tradition down to the commencement of the 12th century.”—(*Ibid.*, p. 221.) The proofs for this assertion are abundantly given at pp. 221–230. A similar class of structures are to be found in the south of Ireland, Co. Kerry; of these the most remarkable and perfect is Staigue Fort, on the shores of the Kenmare estuary. This building is described in the *Transactions of the Royal Irish Academy* by Mr. Bland, and by Mr. Wilkinson in his *Practical Geology and Ancient Architecture of Ireland*. Mr. Bland thus describes it:—

“You enter by a door 6 ft. high, by 4 ft. 6 in. wide at top, and 5 ft. at bottom, through a wall 13 ft. 9 inches thick, into an apparently circular area of 88 ft. one way by 89 ft. the other; but this difference of diameter is so small in proportion to its size, that it appears perfectly circular. The periphery is divided into ten compartments of steps or seats, ascending to the top of the surrounding wall in the shape of the letter X, through one of which you enter. In one part where the wall is perfect, it is surmounted by a projecting eave stone, which when complete, must have added greatly to the effect of the whole. This is indeed the only attempt at ornament in the entire building. On the outside a moat or fosse of 26 ft. wide and 6 ft. 3 in. deep, surrounds the whole building; the wall rises on the outside upon an average about 18 ft.; the inequality in its height is occasioned by the irregularities of the ground. It is remarkable that it does not rise perpendicularly, but batters 2 ft. 7 in. to the top, not in a straight direction, but with a curve.”—(*Trans. R.I.A.*, vol. xiv., pp. 18, 19.)

The section of the face of the wall is a parabolic curve, somewhat similar to that of Aileach, as also to the duns in Caithness and Sutherland in the north of Scotland. Mr. Wilkinson states that there are nine forts of this class in the west of Kerry, in various stages of dilapidation; his testimony as to the character of the masonry in these buildings is valuable, being that of an eminently practical architect, of great experience; he writes:—

“They present admirable examples of constructive masonry, being constructed with the slate-rock of the country, put together without any appearance of tools having been employed to work their surface; and with so much care are they constructed, that it is an exceedingly difficult task to dislodge any small fragment of the filling stones from the face of the walls. They certainly have been erected by persons most expert in construction, and in the superiority of their execution are not equalled by any dry masonry elsewhere met with in the country, or of any masonry of the kind erected in the present day.”—(*Prac. Geo. and Ancient Arch. of Ir.*, p. 59.)

I give a plan of one of these remarkable buildings, taken from the above work; it stands near Ballycarberry Castle, within one mile of Cahirciveen, and shows at once its relationship to the Grianon of Aileach. That the buildings in Kerry and that in Donegal were erected by the same race, and for the same purpose, cannot be for a moment doubted. The similar internal dimensions, thickness and height of walling, external

curved batter, internal chambers in wall, flight of steps on inside face of wall, form of entrance gates, and external ditches, show that these structures were the fortresses of a pre-historic race, who were well skilled in masonry construction, and consequently must have attained an advanced stage of civilisation. In the gateways of these structures we have the original type of the doors of our round towers and primitive churches. The jambs converging towards the top, and the massive lintelled heads, are the distinctive features of the Pelasgic buildings of Greece and Italy, and indicate the course of migration of the early races who brought the traditions of their art into Ireland. The class of structures already described form but a small section of the stone buildings of the pre-Christian Gaedhil. In the south and west of Ireland hundreds of forts, of the ordinary Cashel type, are to be found; these are by the peasantry denominated *Casíol* and *Cathair*, pronounced *Cashel* and *Cauhir*; the latter the oldest known name in any language for a city or fortress, and used as a prefix to some of the oldest in the world, as Car-chemish, Carthage, Carmona, Carteia, Carula.

The Cashel is a circular area of from 30 to 200 ft. in diameter, enclosed by one or more ramparts of uncemented masonry, with corresponding ditches; these ramparts are from 7 to 10 ft. high above the natural surface, and from 6 to 20 ft. in thickness; in some cases the facing is of masonry, the backing of earth, or earth and small stones. The character of the work varies; in some cases the stones are of moderate size, such as would be picked up on the surface, laid rudely together without dressing, and the joints packed with spawls; in other instances the work is of Cyclopean character, stones of great size being used, laid with an appearance of rough-dressing. The entrances are of the same type as those already described; and whatever the character of the masonry may be, the work about the gateways is usually dressed. These stone forts will be found most numerous in the west of the Co. Cork, all through Kerry, western Limerick; all through Clare, Galway, Sligo, Mayo, Donegal, and Antrim. The Rath or Lios is a similar class of defensive structures, the ramparts of which are formed of earth, or earth and small stones. The entrances of many of them are, however, of masonry. One of the most massive Cyclopean-looking gateways I ever saw, was to a rath in the neighbourhood of Macroom; the jambs alone were standing, the stones of great size, dressed on the angles, and well fitted. The lintels had been thrown down, and some of them removed for the material; three, however, of immense size, lay at the entrance. One of the best specimens of ancient masonry I have seen is the entrance of a cathair near Enniskean Round Tower, Co. Cork. The cathair was of great size, enclosed by a rampart faced with dry masonry, and backed with earth and stones; the gateway was 6 ft. wide at bottom, 5 ft. 6 in. at top, and 7 ft. 3 in. in height. It was 16 ft. deep, measured on the side walls, and the passage was covered by seven stone lintels, some of them 8 ft. long, 3 ft. wide, and 12 in. thick. The side walls of this passage were faced with admirable masonry, dressed and finely jointed, without any spawls, as shown in the plate, which is a measured drawing from the original. Almost every rath contains within its area a series of underground chambers, excavated to a considerable depth, and built of dry masonry. Some of these are circular, some square, some rectangular, some elliptical; the rectangular ones are usually covered with slabs of stone, reaching from wall to wall; the square, circular, and elliptical chambers are usually domed with courses of stone, each overlapping the preceding one, until the apex is reached, upon the same principle as the so-called Treasury of Atrius, at Mycenæ, and the tombs of the Etrurians. The execution of the work in these constructions varies with the local material; in some places the walls are built of rude rubble

and rounded field stones; in others, large polygonal material is used; and in others, long flat masses carefully fitted. Doorways are formed in these, leading from one chamber to another, exactly of the same type as the doors of our round towers and primitive churches. I am not now alluding to solitary examples, but to a wide-spread custom. At the time of the Ordnance Survey there were over 10,000 raths and cashels in the province of Munster alone; and as the great majority of these—if not all—had underground chambers, we may form some opinion as to the extensive practice of the Irish in stone construction in pre-historic ages.

From what has been adduced, I think we must be prepared to admit that on the introduction of the Christian faith into Ireland, its professors found no difficulty in procuring skilled masons, competent to the erection of the moderate-sized churches then in fashion; and in doing so that they built not according to any imported style, but after the primitive models in use among them for ages long before.

ABOUT BUILDING SOCIETIES.

We give to-day another sample of our building societies. In the present instance it is the "Planet Permanent Building and Investment Society." The following prospectus is made to show the supposed advantages of purchasing a house, contrasted with renting it:—

A tenant paying £30 per annum rent to his landlord (who holds lease for 80 years, with a ground rent of £4) buys the house for, say £260, and borrows five shares to complete his purchase.

On the 12 years' scale the monthly payment is £2 7s. 11d., or, per annum, £28 15s., being for 12 years	£345 0 0
Twelve years' ground rent at £4	48 0 0
Premium at £3 on the advance being made, £15 deposit to landlord, £10 together	25 0 0
	£418 0 0
Deduct 12 years' rent at £30	360 0 0

Actual cost of house £58 0 0
In many cases in London a house thus purchased would be worth more by £50 than at the commencement of the term.

So far for the Society's prospectus. From the following it will be seen that the addition of interest and expenses makes a very considerable difference:—

Advance of £250 for 12 years:—	
Yearly payments to the society	£28 15 0
Add ground rent, rates and taxes payable by landlord, the cost of repairs, loss while empty, fire insurance, &c.	9 5 0
Gross yearly payments	£38 0 0
Deduct rent of house	30 0 0
Additional payments per annum	£8 0 0
£8 per annum for 12 years, at 4 per cent. per annum, amounts to	£120 4 0
Premium and advance to landlord (£25) with interest for 12 years	40 0 0
Law and survey expenses, stamps, &c., with interest for 12 years	27 7 0
Total value of payments, spread over 12 years, for house costing £260 at commencement of that period	£187 11 0

We may add that the premiums vary from £2 10s. to £4 10s. per share of £50, or from £12 10s. to £22 10s. on an advance of £250. Borrowers should take note of this. In this society and in another, known as the "Temperance Permanent Land and Building Society," both appear to offer great advantages. The Planet under notice offers the easiest terms. A house can apparently be purchased for £15 12s. less through the Planet than the Temperance Society. It is

possible there may be additional expenses to be incurred by the borrower not mentioned in the prospectus of the Planet.

Considering the matter seriously, the intending purchaser of a house through the medium of these societies must put the question to himself, Can I, at the expiration of twelve years, purchase this property (now offered at £260) for the sum which I must pay if I agree to purchase it through either of these societies?—In one case, £187 11s.; in the other, £203 3s.

The intending purchaser has many things to consider if he acts with caution and forethought. What will be the probable dilapidations in twelve years? remembering that the house will be a leasehold, and that it must be of less value in the lapse of years, unless, indeed, the property in the neighbourhood wonderfully increases in value during the time.

The question remains—if it is probable that the property may be purchased for this amount or a less sum—then of what use are these societies? Of course, if the property will be, when it becomes the purchaser's, worth more than the sum paid, then in the difference will be the degree of benefit obtained. In the two societies we have named in this notice the deposit given to landlord is much less than in the former examples we have treated of. We will withhold some observations which we intended to make about building societies in our midst and building societies in general until we have dealt with some more examples calling for notice. Let us repeat, at the same time, that building societies can be useful and safe investments, but unfortunately, at present, the majority of them are not entitled to either public commendation or confidence.

THE DUBLIN SCHOOL OF ART.

THE School of Art in connection with the Royal Dublin Society has, in days past, rendered good service to Ireland; and we trust that in future it will not fail to do good in a like manner. For some days past the public were enabled to judge of the benefits conferred by its existence—an exhibition of works executed by the pupils of the school being on view. The artisans and working youth of Dublin have opportunities, if they would earnestly avail themselves of them; and we would strongly advise all our building operatives and artisans of other branches of trade to do so.

Mr. R. Edwin Lyne, M.R.I.A., the head master of the school, has earned the approval of the committee, who have, in the Annual Report, most flatteringly and honourably complimented him for his able conduct of the school. Mr. Lyne has elsewhere previously received one of the bonuses offered by the Department of Science and Art for his skilful and successful management and teaching. In the exhibition of the Dublin School the works included oil-paintings, drawings, models of the human form, still-life study, landscape-painting from nature, &c. Those workmen in Dublin who may be engaged in the production of textile fabrics or cloths and stuffs, in which figured patterns of an ornamental nature may be necessary, ought, by all means, visit the Dublin Society. The art of drawing, and the subtle power of designing in accordance with the principles of art, is a valuable acquisition; and until our artists and workmen are more fully imbued with the spirit of true art, our country must be a laggard in many things that go to constitute a prosperous nation. There is nothing in the Irish nature antagonistic to the highest culture and art training; quite the reverse. There is, and has always been, a quickness of perception and a love of learning displayed by the Celtic intellect, even in the lowest strata of our society. The Dublin School of Art has of late years struggled nobly, and we are sanguine that the services it will render trade and manufacture, in an educational way, in the future will be more important than it has been in the past.

WANTED— A GUTTER COMMISSIONER.

THE streets! Oh, the streets and the gutter!—this is the cry that greets our ears everywhere. We wonder much that some exasperated citizen, ratepayer, and burgess, not having the fear of God and the law before his eyes, does not imprudently propose the burning of the worthy Lord Mayor in effigy. As the representative of the Corporation, and as our chief magistrate, the Lord Mayor is open to abuse, and amenable to the public will. Alas! the tables have been just turned, and the sins of one Lord Mayor—if he possessed any—cannot be visited with justice on his successors. We hope, for very shame sake, that, during the mayoralty of the new Lord Mayor, the City Corporation will be driven to do one thing or another in the matter of public cleansing. Mud has become one of the heirlooms of our civic power, and, if the precious and increasing deposit is to be preserved or conserved, why not appoint a Gutter Commissioner? The name was borne before, and the sobriquet was the baptism by O'Connell of the "Times Commissioner" by that guttery appellation. The correspondent of the "Thunderer"—the offspring of the Devon Commission—had nothing, however to do with the dirt of the streets of Dublin; the name is a handy one, notwithstanding, and we know of many reasons why it should be adopted. Whether the functionary bearing this title is appointed to see to the cleansing of our streets, or of preserving them in their present fertile state, the necessity still exists for appointing a Gutter Commissioner.

WHAT ONE FAMILY CAN DO FOR IRELAND.

THE MESSRS. GUINNESS AND THE IRISH EXHIBITION.

WHENEVER the history of Irish art, industry, and manufactures comes to be written, the historian, whoever he may be, will have to devote more than one chapter to giving an account of the rise, career, and influence of the Guinness family on the arts, commerce, and trade of this country.

Innumerable have been the associations and societies projected in Ireland during the last half century, for the purpose of reviving or promoting the commercial, agricultural, and manufacturing interests of this island. Lords, dukes, and earls have assisted by voice, purse, and pen; yet, withal, these projects, from the lack of an united effort on the part of the nobility and gentry at large, were short-lived, and their benefits almost *nil*. Strange as it may appear to those outside our shores, the fact remains, that what societies have failed to do, one family has done. Again, what work still remains necessary to accomplish, and that none ever collectively attempted, is now begun by the same family, and we are sanguine of its ultimate success.

True, twenty years ago one man—William Dargan by name,—who boasted of no noble lineage, stepped forward and placed to the credit of the nation a magnificent sum, and a pile of buildings forthwith arose, devoted to the display of Irish and foreign arts and manufactures, and giving by its existence a wonderful impetus to the hitherto dormant resources of this country. William Dargan's efforts cannot be forgotten; and now that he sleeps in his silent grave, we can the more freely bespeak for his name and memory a cordial and lasting recognition.

After an interval another exhibition followed, partially successful as a display, but financially a failure. The Guinness family are determined that the next will be a success; and that it may deserve to be one, they have made a proposal which no people could refuse to entertain, while taking precautions that the business management shall be conducted as business should be conducted. Without a careful organization, and an accurate keeping of the accounts as to income and expenditure, no business, be it small or large, can ever be properly conducted. Grants and

gifts of money for a noble purpose have no right to be thrown away, or entrusted to the hands of parties whose highest ambition is to be cashiers or keepers of the public purse.

The gift of the Guinness family had not its first beginning at St. Patrick's; but long years before it the traits of generosity that distinguished different members of the family were marked. The princely gift of the late Benjamin Lee Guinness, amounting to upwards of £150,000, generously and right royally devoted to the restoration of our great ancient cathedral, was but the culmination of that generosity in his generation which had its commencement in the acts of his worthy father, Arthur Guinness, of Beaumont. The grandfather, as well as the sons and grandsons, was kind, charitable, and indulgent as a landlord and an employer, and his many private acts of benevolence are legion.

If the Guinness family made their money by the people, they have proven, and are still proving, how they can honourably and usefully spend it in the interest of the people. St. Patrick's was not only restored, but the beautiful and ancient Abbey of Cong has been rescued, and the venerable ruins will be handed down to many a future generation, to the glory and gain of religion and art. As employers of labour, the Guinness firm, during the last half century have paid millions of money in wages to their own employes; and, outside their own firm, the amount of benefit they have conferred upon trade is simply incalculable. Almost every branch of trade is, in one form or another, utilised by this wonderful firm, in the conduct of their extensive trade, which stretches almost from pole to pole.

Passing from this part of our subject we will now glance at the important consideration placed before the people of this nation. The Messrs. Guinness have made a noble proposal, which has been acceded to, and the Exhibition Palace is now in the hands of a committee who are resolved to carry out the desire of the donors. We are to have a *bona fide* exhibition of native arts, manufactures, and industries, open, of course, to all other exhibitors outside our shores. Painting, sculpture, and architecture we hope to see worthily represented. Foreign goods as well as British will have a place allotted for their fitting display; and a picture gallery, in which we trust to see the best creations of the old and new masters, will be one of the attractions. In conjunction with the arts, industries, and manufactures of this and other nations, it has been suggested by some of our English contemporaries that there ought to be an *annexe* or adjunct added in the form of an agricultural show. It is assumed that Ireland is essentially an agricultural country, and that turnips and potatoes, sheep and oxen, eggs and butter, and the farming and grazing interests ought to be cultivated, and represented to its highest extent in the forthcoming Irish Exhibition. It will be a question, no doubt, for the consideration of the committee how our English friends' suggestions can be entertained, or can they be reasonably entertained at all. While not ignoring this peculiarly English suggestion, we must demur to the opinion of our friends across the Channel, who would have the world to think that Ireland was by nature unfitted to be only the mother of flocks and herds, and agricultural products. Our people are equally fitted for as high a civilization as any in Europe, and we would be sorry to think that the arts and industries characteristic of England and other continental nations should be confined to these countries alone. What we once produced here a century and two centuries ago, we can produce again, and can produce more readily now, if the impetus be once given. Why should we be merely a draw farm of live stock and agricultural produce? In iron-work, pottery, glass, furniture, paper, delft, cutlery, ironmongery, organ-building, and all those crafts belonging to the building profession, and the requisites of trade in connection, this country was once well represented. Why can she not

be so again? Would it not be an unwise thing to advise her otherwise—to bid her people neglect the arts, and turn their attention alone to agricultural products? Yes, we must still protect the trade we have, and revive what we have lost. Our silks, tabinets, and poplins, our linens and woollens, and all our textile fabrics must be doubly encouraged to live, and no stone must be left unturned, so to speak, in developing native industries, and organizing new ones.

Our artists, painters, sculptors, and architects, and our operatives in every branch, should be afforded facilities for cultivating their tastes. Irish genius and talent is nowise sparse in this nation, nor has it ever been. The youth whose tastes lead him to the arts, why should we relegate him, and hundreds of others like him to grow mangel wurzel, and raise live stock? This country will always, at least for many a generation, raise double the quantity of agricultural products that she requires. She is not only able to support herself in this way but is at present supplying the wants of other nations. We will never be among those who would advise the Irish people to turn their attention exclusively in the direction indicated by English journalists.

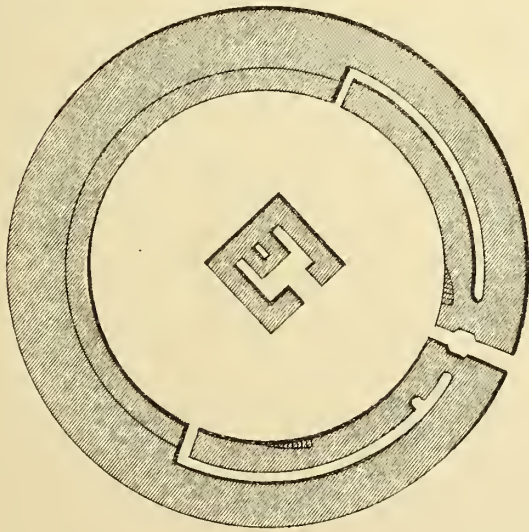
We see no difficulty in the way of making the forthcoming National Exhibition a really prosperous and practically useful undertaking. The nobility and gentry are, however, called upon, and it is their bounden duty to assist the project in every way in their power. To the Loan Department, in works of statuary, painting, and other artistic productions, they can render useful service, for there are many valuable private collections in the country, as well as in England and Scotland.

An Irish Exhibition of arts and industrial products, provided it is well arranged, and the articles are well selected for their high artistic and mechanical merit, will be an invaluable aid to our young artists and craftsmen in this city. Our schools of art are still very sparse, and they are not accessible to hundreds who have desires that they cannot gratify, owing to family exigencies. We hope yet to see in course of time, or rather we hope and believe our successors will see, every workshop a normal school of art. Until every workshop really becomes a practical normal school of art, our craftsmen will not produce the class of work that the age demands at their hands.

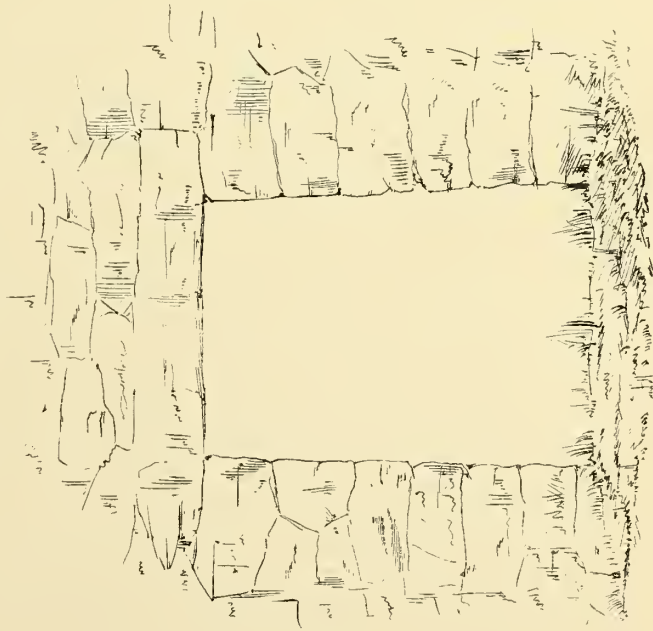
Another feature in connection with the forthcoming exhibition will be, that its interior will be made to show some very high examples of floral culture, and the surrounding grounds outside will exhibit ornamental gardening in its highest phases, with appropriate statuary, fountains, and other accessories.

Believing that the prospectus will be faithfully carried out by Mr. Edward Lee, whom we have known in connection with the Crystal Palace at Sydenham, and of whose experience and taste the British public has had ample proof—we are certain that all will be managed well. Dublin, of course, cannot be supposed to cope with Sydenham or Kensington in products or profits, but, comparatively speaking, the spirit displayed, and the taste manifested at those exhibitions can be shown here on a limited scale, and yet in a highly creditable manner. We would advise all those who are ambitious to earn distinction, and maintain the credit of their profession and country, to prepare at once works in their distinctive lines for exhibition. Artist and mechanic, miner and manufacturer, individually and collectively, should feel the one impulse stirring them to action. The bounty of the Guinness family is equal to the emergency; so let the response of Irishmen be equal to the spirit that actuates the donors in their princely grant for the revivification of Irish art and industrial pursuits in this island. Behold what one family can do for Ireland! If six, twelve, or fifty noble families, wealthy landlords or merchant princes would act likewise, what is there that might not be accomplished? It is but a mere simple arithmetical question, and yet what a volume

GRIANON OF AILECH C: LONDONDERRY.

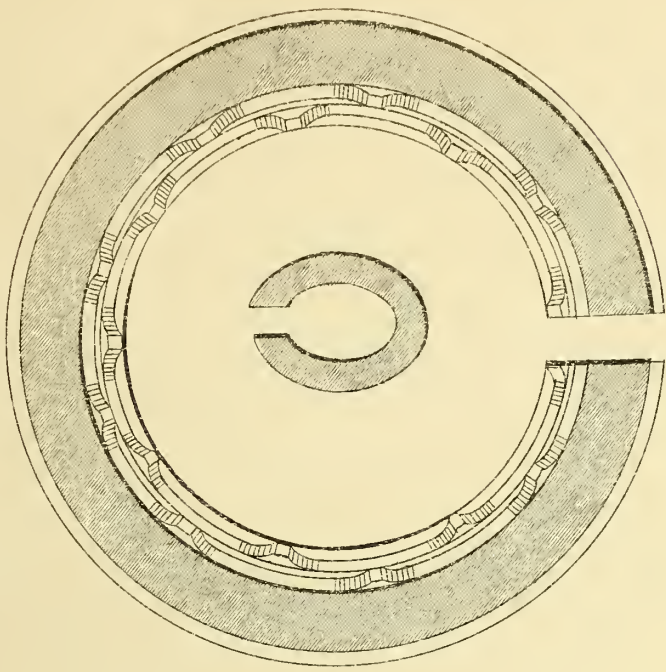


PLAN OF GRIANON.

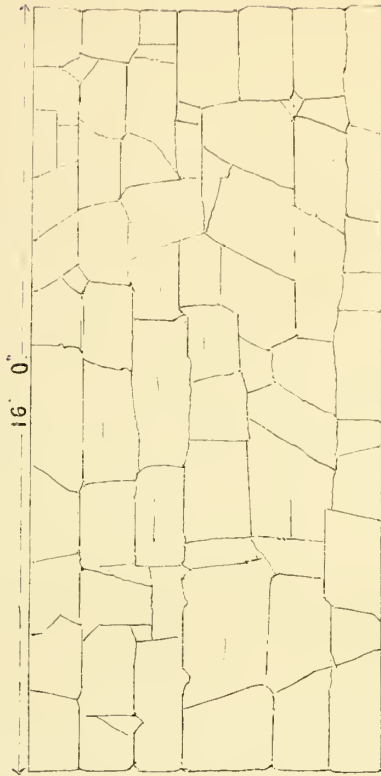


GATEWAY OF GRIANON.

BALLYCABBERRY C: KERRY.



PLAN OF CAHER



SIDE WALL OF GATEWAY
OF
CAHER NEAR ENNISKEAN.

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

of pregnant and boundless wealth does it not embrace.

How many lords, earls, viscounts, dukes, and marquises are there in Ireland? If one noble baronet gives £5,000, say, towards the expenses of reviving Irish industry and art, what amount would a similar contribution from the whole peerage and baronetage of Ireland represent? Were only £500 instead of £5,000 given, or even a much smaller sum, how wonderfully augmented would not the Guinness gift be, and what a social and moral revolution would it not effect for this rather ill-fated land!

Sir Arthur Edward and Mr. Edward Cecil Guinness have done and are doing their duty, and are worthily following in the footsteps of their worthy father and grandfather. They are wealthy and influential, and may their successors be legatees of their generosity as well as their wealth. Architecture, sculpture, and the arts, will be remembered in connection with the gifts and services of the Guinness family; trade and manufacture will be remembered, charity and religion will be remembered, and all Ireland for generations cannot forget the noble grants and princely bequests of this single and singularly constant family. With fond recollections of him of Beaumont and of James's-gate in days gone by; with greener and fresher memories of him of St. Anne's-on-the-Sea, with memories of St. Patrick's restored, and the venerable Abbey of Cong renewed and beautified; and lastly, with yesterday's reminder, of one other act that will not pale in the light of the preceding ones, we bespeak for the Guinness family the gratitude of united Ireland, and ask of our countrymen, irrespective of sect or party, to join us in the wish that the Irish Exhibition of Arts, Industries and Manufactures may be a triumphant success!

DUBLINIENSIS.

THE CHOICE OF A DWELLING.*

How to build, buy, or lease a house in the best possible way, requires a knowledge of matters of a practical nature which very few outside certain professions possess. The day-dream of the hard-worked city merchant or trader, if he ever has time to dream, is often connected with what he would like his future habitation or family mansion to be like, when he is enabled to retire into private life, and spend his remaining years in ease and comfort, surrounded with gardens, orchards, fields, flower-beds, and all the beauties that nature and art assisting can render. To other minds less ambitious the choice of a house involves no little anxiety, whether they may be fated to live in the country, the suburbs, or the city, during the remainder of their lives, on limited incomes. House building, buying, or hiring is a matter that should not be lightly undertaken. The man who desires a house for his own residence, and can afford to build it, including every essential requisite of a family residence, has need to act with caution, as well as him who can only hire one. Unlimited means may lead to unlimited annoyances, if injudicious counsel be given, or if the sensible and prudential advice of the respectable architect be overruled by the whims and ever-changing fancies of the client. To all interested,—whether architects, builders, hirers of houses, or buyers of house property, professional or private gentleman, merchant or shopkeeper, clergyman or mechanic—Mr. Gervase Wheeler's work will be most welcome and invaluable.

We have a practical acquaintance with many works designed to meet the ends and objects of a practical handbook on matters of house building, furnishing, and finishing in its various branches, but we must say candidly for completeness the work under notice, up to this date, is the best that has

appeared. Although many of the matters treated upon by Mr. Wheeler have heretofore been ably handled by others, yet he has added much valuable information, and the arrangement of the subjects in his pages is such that the knowledge required can be found without trouble.

Mr. Wheeler's designs include many plans and elevations of expensive or rather costly American dwellings, as well as London ones; and the arrangements and furnishing of the former class of houses will turn public attention to the consideration whether it would not be advisable to imitate our American cousins in some matters connected with house construction. In the plans of the American dwellings a difference may at once be seen, if we compare them for a moment with the class of houses generally designed in Great Britain and Ireland. The American dwellings have a greater depth, and there is a change or transportation of arrangement in the matter of kitchens, dining-rooms, drawing-rooms, reception-rooms, &c. Underneath the basement ample provision is made for larders, store-rooms, warming apparatus, ice-closets,—in fact a complete cellage for every essential necessary. The climate of New York, of course, leads to some arrangements almost necessitated, and, compared with London, there is a great difference in the value of the land. At page 133 Mr. Wheeler gives a "Special Plan, with Illustrations."

The plan in this instance is of a house erected by the author in Philadelphia, and he adduces it, hoping that it will not be without a useful application in Great Britain. We quote the description:—"The plot was 25 ft. frontage, by 100 ft. in depth—the invariable area devoted to what is called a 'city cot.' The extreme depth on the basement and principal floors is 78 ft., including the piazza, and of the bed-room floors (of which there are three), 50 ft. In the basement, the dining-room is 20 ft. wide by 25 ft. deep, and is octagonal, the corners being cut off to obtain more space for the room by curtailing the passage (which is only used by servants and tradesmen coming to the house), and at the same time not to contract the doorway and its side-lights. A fire-proof safe occupies one of the front corners, and from another a door opens into a large private store-closet. The other portions of the plan follow the general description previously given. Servants' bath-room and water-closet are provided on this floor. The principal floor comprises two long rooms, each 25 ft. by 15 ft. 6 in., with columns between; the extension or tea-room in the rear; and back of all, the enclosed piazza, made with close panelling as high as an ordinary window-breast, with Venetian blinds working in grooves between the pillars that support the over-hanging roof. Between the end of the reception-room and the rear apartments are wide, sliding, glazed doors, which, when opened, do not show, the opening extending nearly to the cornice. There is at the end of the hall a serving-room, with lift to a closet below, for use in entertaining company. The bed-room plan represents two large bed-chambers, back and front, with dressing-closets between lighted by a well; and at each end of the hall small rooms—that in front being a single room, and in the rear a general bath and water-closet. Each floor is similarly arranged. The dressing-closets are very completely fitted; on the right are wide drawers, and above are wardrobes, but of full size, and with every contrivance that ingenuity can devise for hanging and placing dresses; upon the left is a bath, with a shower over, and a marble wash-basin; a large cheval glass forms part of the fittings."

The above is the description of this highly-finished American dwelling, substantially built, furnished throughout with hard, polished wood; furnished with every modern appliance of comfort—heating and ventilating apparatus, hot and cold water to every dressing-room, gas pipes, speaking tubes, &c. Externally faced with cut stone, verandahs to back tea-rooms, double floors—everything of the best materials. The cost

of this desirable, and, shall we say, "eligible residence," was £7,000 of English money. The site, or the land on which this building stood, was worth, at the time of the building, about £2,500.

Mr. Wheeler's plans and designs are varied, and he speaks in favour of a class of houses, of which he furnishes a design, the cost of erection of which would be £500. For this sum he thinks that a picturesque class of houses, suitable for summer quarters, can be built. We have plans of London houses, detached and in pairs; suburban parsonages, country parsonages, country houses, with picture-gallery; summer cottages, large country houses, with tower; out-buildings, block plan of domestic offices, large circular stable, and several other designs, English and American, of dwellings and their out-buildings.

In the matter of drainage, water supply, ventilation, cesspools, foundations, material, workmanship, dealings between architect and client, the duties of surveyor, builder, workman—on every matter that can possibly be a service, there is sound and seasonable advice and information afforded in Mr. Wheeler's book.

To the Irish, English, or Scotch architect—no matter how thoroughly he may understand the routine of his profession—the addition of this volume to his library will enhance its value, and afford him a ready reference or a reminder of matters which may possibly escape his memory. The questions that have to be considered by prudential architects who value their reputation are so many and various, that a practical and reliable handbook of epitomised information on all building matters will be an advantage. "The Choice of a Dwelling" is such a work, and we would bespeak for it in this country the attention and approval it so eminently deserves at the hands of architects, builders, and others.

THE LATE THOMAS HAMMOND, ESQ., J.P., SHEEPHOUSE.

THE death of the above-named gentleman has been recorded within the past fortnight, at the ripe age of seventy-five. Whilst in partnership with the late Mr. Murray, upwards of twenty-five years ago, he carried out contracts for many lines of railway in this country and also in England. The name of Thomas Hammond will long be held in memory; in all the relations of life he was found a kind friend to all with whom he had to do. We need hardly say that the business of quarry-owners and contractors is carried on at present by his sons, Messrs. A. and N. Hammond, Drogheda.

THE WATKINS FUND.

WE would bespeak a kindly consideration on the part of the public for the wife and children of the late Joseph Watkins, sculptor, R.H.A. The Committee formed have already received a very moderate sum, but we trust that, before their labours are concluded sufficient funds will have been contributed as will respectably maintain Mrs. Watkins, and enable her to educate her son. Mr. Joseph Watkins, had he lived, would not have belied his early promise. He had given the Irish public many proofs of his genius and artistic talent, and the evidences which he has left behind him of his labour are sufficient to have earned him distinction. Sir George F. J. Hodson, Bart., is the chairman of the committee; Thomas A. Jones, President of the Royal Hibernian Academy, is the treasurer; and Stephen N. Elrington, Esq., the hon. secretary. Subscriptions will be received at the Royal Bank and all its branches, or by members of the committee. The appeal, we hope, will meet with a hearty response from architects, artists, and all others in the domain of literature and art, or outside it. Practical sympathy in this case is urgently required; and in respect for the dead, and his honourable profession, we hope it will be forthcoming for the sake of his wife and child.

* "The Choice of a Dwelling: a Practical Handbook of Useful Information on all Points connected with Hiring, Buying, or Building a House, with its Stables and Garden Outbuildings." By Gervase Wheeler, Architect. With Plans and Views. London: John Murray, Albemarle-street.

IRISH AND FOREIGN BUILDING MATERIALS.

WE have received some correspondence from different parts of the kingdom relating to the above subject. It is a matter that is plainly open to discussion; but whatever we may write about, we do not wish to be looked upon as persons who hold very narrow or selfish native views. The importation of some foreign materials may be a necessity; and as a necessity, the importation of others cannot be defended on any grounds. It is a patent fact that here in Ireland we have an inexhaustible supply of almost every description of building stone, and our divisions and varieties of limestone are most numerous, from the softest to the hardest species. Even in this one County of Dublin the building stone is of the most varied kinds, from calp to granites, including freestone of the Bath and Portland qualities, as well as descriptions of the marble kind.

We are informed that a certain large and important building contract in this city, in which native limestone was intended to be used for the external dressings, a soft foreign material is about to be substituted. We regret to hear this resolve, if it is really resolved upon. We trust, however, considering the nature of the work, the character of the funds appropriated, and all the surroundings, that this change will not take place. Perhaps it is not too late yet to retrace the steps taken; and if no tangible grounds can be given for the change, that this intended importation of foreign stone will not be effected. We are not of that ultra-rapid party who would strive to shut out of the Irish market English or Scotch productions, because they are such. Irish stone, lime, and mineral productions have been imported into England, and even into Holland and other continental countries, two centuries ago, and Irish marbles are at present imported in large quantities into England. All we desire is a mutual exchange, fair play, and all the advantages not to be on the one side only. The British Islands conjointly are equal to any emergency of the building interest.

When our city Corporation—which should conserve Irish interests—were persuaded by some of their eloquent and oily orators to import foreign whinstone for the pavement of the city, and when another big job was perpetrated in connection with the water-works, our people had reason to remonstrate. Remonstrance came too late; the evil example had been shown, and it has to a considerable extent been followed out and encouraged by the first promoters. We were furnished, of course, with statistics, and informed by long-drawn reports of the special qualities of the foreign materials; but we were neither convinced nor confused by the expedients adopted, for we can see as clearly to-day as we did several years since the particular individuals who were benefited by the transaction we have alluded to. The secret history of how the cards were shuffled in and out of the committees, will be one day made known, and the result we may anticipate.

If ever any unfortunate public were to be pitied and despised at the one moment, it is the Dublin public. Taxed and re-taxed, coaxed, wheedled, eulogised, threatened, laughed at, and trampled upon by a knot of time-serving and litigious incapables, this city may well be branded the “butt and the fag” of scorn, a very slattern of cities. “Dear dirty Dublin” has passed into a proverb, and its Corporation, in its present composition, will never be able to wash the stigma out. It is mournful to contemplate how we are ruled, and how our best interests are sacrificed directly and indirectly for personal aggrandisement or political capital. Those who should represent us in our local parliament sell our interests to the highest bidder.

We are not of the political school of disputants, and our exposition of a public wrong is confined to a domain altogether apart from the field of politics. Art, trade, commerce, manufactures, and all mechanical and industrial pursuits, viewed in relation to the pros-

perity their practice creates for the common weal, irrespective of the warfare of sect or parties,—that is our province. How can Irish architecture or Irish art or trade prosper, if it is not fostered and promoted by those who tax and rule us locally? When iron houses and dwellings are substituted for brick or stone (if it ever should happen), we may expect that there will be a great deal done in importing this portable description of house property from abroad; the greater the distance it may have to be brought from the greater will be the virtue of the materials. This is the view now entertained by importers of Italian marbles, French and German organs, church furniture, and ecclesiastical literature. The curse of Swift is upon our race, and the malediction has lain so heavy upon us that it needs an united honesty of efforts as well as a combination of native power to remove it.

A NOBLE IRISHMAN!

THERE is no instance in history where one individual has given so much money for philanthropical purposes to the suffering of other countries as Mr. A. T. Stewart (New York). Soon after the breaking out of the war of the rebellion he sent 10,000 dols. to the distressed cotton-weavers of Lancashire, in England. Soon afterwards he sent out a ship freighted with provisions for the relief of the starving people of Ireland. At the outbreak of our war with the South he subscribed for the government 30,000 dols. The year previous to the recent Franco-German war there was great dearth of food in South-eastern Prussia, and to the sufferers Mr. S. sent 10,000 dols. gold, for which Bismarck sent him an autograph letter of thanks. Towards the end of the war between France and Germany, Mr. Stewart sent a ship with 50,000 dols. worth of flour to Havre, to be distributed among the suffering and poor. Afterwards he sent 100,000 francs to Paris for the benefit of disabled French soldiers, and a like amount to Berlin for the Germans. His 50,000 dols. to Chicago appropriately crowns the column.—*Harper's Weekly.*

THE ROYAL ACADEMY, LONDON.

THE following appeared in a recent number of the *Cork Daily Herald*. We gladly give it a place in our columns:—

“THE ROYAL ACADEMY.—We make the following extract from the account published in the last number of the Building News of the annual distribution of prizes to the successful students, which took place on the 9th inst. After reviewing the several architectural drawings, the editor states that the medal offered for the best drawing of the Temple Church, London, was awarded to Arthur Hill, and adds:—‘The drawings of the successful student are by far the best exhibited; they are beautifully clear, not over-laboured, and the details are drawn with a firm and vigorous hand.’ We are happy to say that Mr. Hill is our fellow-townsmen—that this is not his first success in London, and that he is favourably known amongst us by his publications on ‘Antient Irish Architecture.’”

LONDON ITEMS.

THE *Athenæum* announces that our talented countryman, Dr. Whitley Stokes, is preparing for publication a new and much improved edition of the “*Gaedelicæ*.” We may add that it is also known that “The *Feliré* of Aengus the Culdee,” with a translation and notes, is in preparation.

A new journal devoted to mining interests will shortly appear as a monthly magazine, under the title of “The Mining Magazine and Review.” The editor will be Mr. R. Nelson Boyd, F.G.S., well known as a consulting and mining engineer. Several able writers will contribute on special subjects in relation to mineralogy, metallurgy, and the cognate branches.

Our contemporary, the *Bookseller*, states that the Stationers’ Company have this year, for the first time, discontinued the publication of the productions of John Patridge. Here in Ireland we are tolerably well ac-

quainted with the name of the notorious Patridge, whom Dean Swift so unmercifully lampooned in his day. Imposture has a long run sometimes, but it is a source of satisfaction to hear that Patridge’s predictions and fortune-telling is relegated to the limbo of rotten shams. Gipsies and Irish cup-tossers ought to “dry up.”

The intended formation of a Celtic Society is announced in London for the opening of classes in the Irish language, the establishment of an Irish library, and for a general meeting centre for all lovers of the Celtic tongue. We wish it success, but we doubt if there is any real support at the foundation.

ART-WORK AND HANDICRAFT.

IT is becoming every day a more and more difficult task to the many to distinguish or define the lines that separate art-work from handicraft. The inability to understand what constitutes true art-work will be no great difficulty to those possessed of an advanced, educated opinion, embracing a nice discrimination as to the fitness and use of objects produced, or a cultured intellect that can at once detect and analyse the laws of proportion, the harmony of parts, and the beauty of the whole,—whatever the object may be. Art-work, so called, of every species, in the present day, is often a most multiform and incongruous assemblage of creations, or rather productions, owing their existence to the most varied, vitiated tastes. Let it be understood at once that handicraft can and does proceed from the studio of the sculptor, the easel of the painter, and the drawing-board of the architect, as well as from the carpenter’s bench, the blacksmith’s anvil, or the potter’s wheel. Why does it so happen? Simply because the said sculptors, painters, and architects are not artists, in the true creative sense, but merely handicraftsmen, imitators of others in everything,—students once, who learned to draw, but who have failed to grasp the subtle faculty of design. The faculty of invention is a prime essential to every artist who is ambitious to produce original art-work; but invention of itself would die of inanition if it lacked the power of development and embodiment that comes through a concentration of the thinking faculty. It is not sufficient only to give life or infuse a soul into the child of your brain, but you must help it to live. The child of art—i.e., the creation of art—must be the production of a creative mind, and not an imitative one: a mind fully imbued with the principle that constitutes it. To make ourselves understood, let us say that no man yet ever produced impromptu, so to speak, a work of art. Educated, or in part educated, or self-educated, his tastes had their first dawn and gradual development. Many young minds have been possessed of an innate and betimes marvellous power of ingenuity; but each and every one of these juvenile manipulators will be found to be imitators, unskilled craftsmen, though possibly incipient artists. We will even go further, and boldly assert that every human individual, no matter how perfect an artist he may become in after-life, has been once a plagiarist. Plagiarism, to some extent, is the primal and normal condition of all first efforts, be they in the region of literary thought or artistic creation.

Unfortunately for the interest of true art-work, this condition of pupilage lasts during the whole lifetime of some men. The boy leaves off his hoops and kites, and the girl her dolls, but some of our artists stick to their first copies all their lives. Their models and automata are the crutches they lean upon; deprive them of these helps, and their individual resources are insufficient to lift them or their works into a lasting public notice.

The goldsmith and the ironfounder produce works of an ornamental nature, artistic in execution (we are to believe), and yet when we examine into the nature of these works we find it is entirely destitute of art. What might be art is nothing more than the

craftsman's superior skill,—a work begot of moulds and templates of many processes, and the outcome of many fingers.

The stone-carver and the plasterer in the building trade often execute pieces of workmanship of very high merit to which the term art is applied very often by themselves, as well as others; but the chiselling of a stereotyped capital or corbel, or the casting and fixing of so many yards of interlaced enrichments of egg and dart, or oak leaves and acorns, is not art,—it is pure handicraft, rote, and practice, through several generations, from father to son. The workmanship of a house in all its branches is simply nothing more than handicraft as the design of a house may also be. Yet, on the other hand, the architecture of a house or public institution in its original and thought-out design of proportion, fitness, and beauty, may constitute it a work of art. In the cathedrals and churches of the Middle Ages, and in a few of our public buildings of the present century, we have perfect works of art. There are architects, too, in our midst who are labouring to make architecture, as a whole, an art. Until this idea is accomplished, and the legislation and spirit of the times imbibe it, art-work and handicraft will be undistinguishable by the many.—*Builder*.

BOOKS RECEIVED.

Practical Geometry for the Architect, Engineer, Surveyor, and Mechanic. By E. Wyndham Tarn, M.A., Architect, Author of "The Science of Building," &c. London: Lockwood and Co., Stationers' Hall-court.

THE name of Mr. E. Wyndham Tarn is a guarantee that any work that bears his name will be worthy of the subject as well as the author. His "Practical Geometry" is a superior work of its class, evidencing a thorough acquaintance with every property of geometrical figures, theoretical and applied. The knowledge and history of geometry is as old as the planets and their courses, and its first triumphs are coeval with the age of workmanlike and artistic building. Where its laws are set at defiance, or ignored through ignorance, architecture becomes a sham, and building a thing of contempt. Where it is properly applied the object becomes a thing of beauty and a model for others—an example not to be slovenly imitated in its every detail, but to be followed in the spirit of its design. The ignorance of many of our architects, engineers, and workmen of the science that should be the basis of all their efforts, leads to the most disheartening results. Our artizans for the most part work by the immemorial "rule of thumb," to the delay and danger of the work on which they are engaged. Did they in general possess a simple acquaintance with the knowledge of geometrical figures or "lines," they could save time, material, and almost constant pain and trouble on their part.

Mr. Tarn's work supplies a want. Abstruse demonstrations and extra-technical terms are eliminated, complicated methods are abjured, and simple science is unfolded plainly, clearly, and in suitable language to the most ordinary capacity. One after another we have a description and an application, by aid of well-executed diagrams, of the properties of lines, angles, parallels, proportion, rectilinear figures, the circle, inscribed and circumscribed circles, inscribed and circumscribed polygons. Next we have the conic sections, with their respective headings; the ellipse, the hyperbola, the parabola, the catenary curve, the harmonic curve, the lemniscate spirals, the involute of the circle, the spiral of Archimedes, the reciprocal spiral, the lituus, the equiangular or logarithmic spiral, and cycloids.

One hundred and sixty-four well-cut wood engravings accompany the letterpress in illustration of the properties of the different geometrical lines and figures described in this valuable volume. No such volume has

heretofore been published that can bear comparison with Mr. Tarn's for clearness, practical demonstration and arrangement, with a view of being eminently serviceable to architect, engineer, surveyor, and artizan.

When our working-men in the building branches become technically educated with the principles of their respective trades, the science of building will be better understood, and the work that passes through their hands will be better performed. No man is a good building mechanic who is unacquainted with geometry. The very essence of carpentry, joinery, masonry, bricklaying, stone-cutting, and plaster-work enrichments is the development and embodiment of lines and figures in construction. To build properly we must accurately design, and we can never accurately design without having a knowledge of geometry. Our operatives should be made to understand this thoroughly. There are many who do understand it, but neglect to acquire the information that will enable them to become practical workmen. We will reiterate again our opinion that the volume of Mr. Wyndham Tarn is a really valuable one, and in this age of advanced education, it may well claim a foremost place amongst works of a cognate character already published.

The Sewage Question, &c. Irrigation and Intermittent Downward Filtration. By J. Bailey Denton, Mem. Inst. C.E., F.G.S. London: E. and F. N. Spon, Charing-cross.

THE pamphlet under notice by Mr. Bailey Denton is, without second question, a valuable one. The matter contained, letters, and appendix, originally appeared in the *Times* and *Maidstone Journal*.

Mr. Denton begins by detailing the several processes in course of experiment throughout the country for the disposal, treatment, and utilization of sewage—dealing afterwards with the question of irrigation and downward filtration as modes by which the sewage may be properly and productively employed.

Sewage irrigation may be conducted by different methods in its distribution over the land; it may be conducted in such a way that its fertilizing qualities may be entirely lost. Wet and undrained lands may be subjected to an over-dose; sandy soils may get too little; loamy soils too much. Surface treatment may be considered a benefit where it is the reverse, and downward filtration may be laughed at or overlooked.

It would be advisable for those who have to do with the question, or who may possibly be soon driven irresistibly by various interests to pay attention to the subject, to read what Mr. Denton has to say on the matter in most of its serious aspects.

What is *irrigation*, rightly considered in view of the sewage question? Properly conducted, on land naturally fitted or artificially prepared, Mr. Denton answers, that it is "the application of sewage to as many acres as it will wet without super-saturation, having in view the production of a maximum growth of vegetation from a given quantity of sewage." By *filtration* Mr. Denton means "the passage of a given quantity of sewage through as few acres as will cleanse it, taking care, in order to secure permanent efficiency and freedom from miasmatic evils, that there are several series of beds whereby periods of rest from filtration may be ensured, and the growth of vegetation promoted with all its scavenging powers."

Irrigation and filtration, though different or opposite to each other in aim and end, they assist in obtaining the objects sought. The primary purpose is, no doubt, to gain profit by productive vegetation; but there is something more that ought to be secured—the soil below as well as the surface above has to be considered, and the consideration involves downward filtration and under drainage.

There are various methods before the

public, adopted with less or more success, for treating the sewage of towns and cities—the A B C Process, "The Phosphate Sewage Company," "The Native Guano Company." Then we have processes in which the following articles are utilised in preparing the sewage—charcoal, sulphate of iron, lime and coal dust, phosphate of magnesia. The perchloride of iron treatment is abandoned in some places, and some of the other processes are also undergoing a change. There is the dry earth system also, which possesses some advantages, and which has its strong advocates. In certain localities the A B C system and others will be found useful; but we are believers in thorough sewage irrigation, and a judicious attention to downward filtration, where the character of the soil and the locality is well understood. The facility by which a proper system of sewage irrigation can be carried out in respect to a town or city, depends, to some extent, on the area, population, inclination of the land, and the amount of it available for the purposes of sewage distribution or sewage farming. The prejudices of farmers and growers of live stock have yet to be conquered, but we have little doubt they will listen to reason in time—it will be their interest to do so. In the meantime town boards can farm themselves, or rather they can purchase ground where they do not possess it, and can let it to others. As the rivers must be kept clear of pollution, and as the sewage of towns and cities in future must be utilised, land must be obtained in the vicinity of these places, or the sewage must be disposed of in one form or another at a distance.

The question of the public health is a most important matter, so is also that of the food of the country. If we can make two crops grow where only one had grown before, or if we even can succeed in a general way of having three good paying crops in the space of time formerly taken up with raising two—if we are enabled to do this by a proper system of sewage farming, we will have reason to feel satisfied.

The perusal of Mr. B. Denton's pamphlet suggests various considerations which we feel a deep interest in. We would like that this question was kept before the eyes of our fellow-countrymen; but before we can make the farming classes of this country realise the value of sewage irrigation and farming, we must drive our corporate and local boards into action. Corporations and town boards must move or be compelled to move in this country a little faster than is their wont. They are not only by their inaction robbing the poor of their health, but they are destroying the lives of our people. They are polluting the waters of our rivers, and allowing what might be converted into valuable manure to act as a poison, or pass out to sea a wilful waste.

We may add that Mr. Denton's process of intermittent filtration has been carried out, at Merthyr Tydvil, in South Wales, under his own direction, satisfactorily.

We will return on another occasion to deal for the national good with other matters discussed in this most useful pamphlet on the Sewage Question.

The Illustrated Price Book for 1872. London R. A. Sprigg (late Atchley and Co.), 106 Great Russell-street.

THIS is one of a class of books which is becoming, year by year, more indispensable for the use of architects, engineers, surveyors, builders, and workmen generally, in connection with all branches of their professions and callings. This volume is full of the most useful memoranda,—the present prices of all kinds of building materials and labour, tables for calculating and estimating for every description of work, the taking out of quantities, and various other matters. The work is illustrated, and contains plans, elevations, views of villas, mansions, and cottages, with specifications. The Price Book will be found most useful to the gentleman employer as well as the professional man, as a ready and

reliable reference. In this work there is added a treatise on Smoky Chimneys—the constant sorrow and annoyance to many. There is scarcely anything omitted from this volume that can be deemed a service to know. There is some useful advice on drainage, the utilization of sewage, water supply, hot-water apparatus, stoves and belongings. Asphalt, its nature and use also as one of our latest introductions, comes in for due notice. We can safely recommend Mr. Sprigg's Price Book for 1872 as a most valuable, essentially useful, and well-arranged work, full of information, and reliable in its details. We need say no more than this of the volume, which, though subject to a necessary yearly revision, is nevertheless a standard Price Book.

DREDGING FOR ANTIQUITIES.

THE Tiber is to be forthwith dredged. A society has been formed in Rome, and, in connection with an engineering company established for the embankment of the Tiber, the work of dredging for antiquities will commence. However valuable the relics may be which are turned up, they will not exceed the value of the engineering work so long desired. Among the names of those connected with the enterprise are those of Signor Castellani, Prince Odescalchi, the Marquis Vitelleschi, Mr. Story, the American sculptor, and the historian Mommsen. The antiquities unearthed will be devoted as objects to the forming of a national Roman museum. The enterprise, we believe, is entirely independent of the Government, and though naturally patriotic, the aid of antiquarians and archaeologists belonging to other countries will be gladly accepted.

A PLEA FOR "THE LEARNED PIG."

"GREYFRIARS' Bobbie," the eccentric canine sentinel of his master's grave in an Edinburgh churchyard (thanks to the extra liberality of Miss Burdett Conlts) has been honoured with a testimonial. *The Illustrated Newspaper*, writing on the subject, says, "Why stop at dogs? Why not have immortal pigs?" Yes, we repeat, why not? Paddy's pig is the rent-payer, the real Corinthian prop of the cabin, and we can vouch for the humane and scholarly attainments of some of the species. We have had immortal dogs ere now in this *Insula Sanctorum*, but very few are aware that we can also boast of a philosophic and most learned pig. Strangest of all, the tutor of our young piggy in his early days was a canny Scotchman. Bisset, a native of Perth, an itinerant exhibitor, bought a black suckling pig in the market of Belfast, and after several months' arduous training, he was enabled to instil such an amount of good breeding and gentle manners into piggy's cranium, as to fit him for making his *debut* before an intelligent Dublin audience, in August, 1783. The chief magistrate of the city gave permission for the exhibition, and was a witness to the performance of Bisset's "Learned Pig." The newspapers of the time tell us that the noble grunter could spell, without any apparent direction, the name or names of those in company; cast up accounts; point out the words thought of by persons present; tell exactly the hour, minutes, and seconds; point out the married and unmarried; kneel and make obeisance to the company; and do sundry other things. The memory of this "Learned Pig" still survives in Dublin, but we never could learn how long it lived, where or at what particular age it died. We know that the poor exhibitor was set upon by some petty officer during one of his performances, was threatened to be dragged to prison, and from the rough treatment he received was thrown into a fit of illness, from which he never effectually recovered; and leaving Dublin died at Chester on his road to London. The man who could teach an Irish pig to work intuitive calculations, and act in accordance with the laws of etiquette, certainly

deserves a lasting monument, and, though a Scotchman, we would not rob him of his well-earned reward. We must not forget, however, that the young *bonneen* was racy of our soil. How will we harmonise the nationality and character of this work of art? Sandy *en robe* with kilt and philabeg driving an Irish pig to Cork or Kinsale, would not be *apropos* as a work of native statuary in the streets of Dublin; nor are we certain that Sandy would feel complimented to see himself poised in the attitude of an exhibitor of even a learned Irish pig, particularly since the Clan Campbell has been ennobled. Let us have the monument at all events; at worst it can only be a failure, like other recent and ill-considered creations of the sculptor's art. Humanity needs a recoil, and there can come no better warning than the erection of some monstrous anomaly in the name of art, that nature may be outraged and a desired reform effected in public morals and taste.

"THE LAND QUESTION IN FOREIGN COUNTRIES."

THE above is the title of a very useful publication, issued from the printing-house of the Messrs. Waterlow and Sons, of 49 Parliament-street, Westminster, and 25 Great Winchester-street, E.C. The object, as stated, is the discussion of the Land Question, taking the reports of the Foreign Office as the basis. The first number affords a great deal of valuable information concerning the tenure of land, and all its belongings, in several of the continental nations and also America. In Ireland, where the subject of the Land Question is always under discussion, and where the relations between landlord and tenant are far from what they should be, the publication ought to be welcome. We trust that the projectors may be enabled to continue their labours in this most important field they have entered, and that their liberal gratuitous distribution of the publication monthly to several thousands—to editors of newspapers, solicitors, barristers, mechanics' institutes, Parliamentary representatives, abroad and at home—may be productive of the benefits that might reasonably be anticipated.

CORRESPONDENCE.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—You have my best wishes, and, I should say, those of the whole of the deputy county surveyors of the kingdom, for your goodness in giving a place in the *IRISH BUILDER* for the advocacy of our just and reasonable claims. The sensible letter of a brother surveyor in your last issue is unanswerable, and may awaken up those parties to whom the helm of our affairs was entrusted—and the long-expected pamphlet will, I am sure, shortly appear. I now conclude this brief letter in the hope that the *Men of the North* have not degenerated, but have "self-reliance" like those of '82.—Yours, &c. C.E.

Bagnalstown, 23rd Dec., 1871.

THE FARNHAM STATUE.

THE statue of Lord Farnham, erected in the Farnham Gardens, Cavan, was unveiled on the 20th ult. It is of white Sicilian marble, representing his lordship in the robes of a Knight of the Order of St. Patrick. The pedestal is composed of Bessbrook grey granite, and is, inclusive of the plinth, over nine feet. The figure resting above is nearly eight feet, so that the entire altitude of the monument is about eighteen feet, or nearly. Concerning the effect, one of our daily contemporaries writes:—

"The effect in this instance is light and elegant. Over all there is a quiet harmony, which is graceful and characteristic. The figure is draped in the robes of the Order of St. Patrick. The position is natural, easy, and impressive; the look is one of calm simple dignity, yet not unmixed with an expression

of genial kindness. In this repose there is no want of vitality. By the firm, yet flexible, modelling of the face a likeness most faithful and effective has been obtained, which handling less nervous or earnest would in vain have sought to reach. The working of the collar of the Order of St. Patrick, with the interlacing cords of the cloak, forms a rich and varied surface, valuable as contrasting with the plain markings of the lower drapery, which falls in magnificent folds. Knots and hood open from the throat, and hang broadly from the shoulders, the left arm half raised from the elbow, catching it up and carrying it across the breast. The right arm is seen at the point where the robe touches the right side. All the details have been treated with striking ingenuity and skill, and the whole work is one evincing great artistic learning, diligent study, and marked ability. It entitles Mr. Lynn to take a foremost place amongst the artists of the day."

The statue is situated in the centre of the Farnham Gardens, which are maintained by the Farnham family for the use of the inhabitants. A view can be had from Farnham-street, the chief entrance-thoroughfare of the town.

NEW DREDGER FOR DUBLIN HARBOUR.

ONE of the largest steam dredgers ever constructed has been launched from the yard of Messrs. Wingate and Co., Whiteinch. It has been built to the order of the Port and Docks Board, and will be employed in connection with the extensive works now in progress under the direction of Mr. B. B. Stoney, C.E. The dimensions are—160 ft. long, 30 ft. beam, and 11½ ft. deep; tonnage, B.M., 1,110 tons. The vessel is fitted with engines of 60 horse-power nominal, capable of dredging to a depth of 40 ft. under water, and of lifting about 1,000 tons per hour. She has a double row of buckets discharging at each side of the hull, and all working parts are of steel. The gearing is all of great strength, and is fitted with frictional wheels, and all the most recent improvements.

GRANITE AND ASPHALTE PAVEMENTS.

In a recent issue we gave pretty full particulars of the comparative merits of granite and asphalt pavements, as shown by Mr. Haywood's report. The Engineer to the London Commissioners of Sewers treats of other asphalt pavements in his report beside those of the Val de Travers Company and Limmer Company. His conclusions, however, are based upon the quality and durability of the roadways laid down by these companies. We will, for the information of our citizens and readers in general, subjoin his remarks upon the material now supplied by other companies, who have been employed to a limited extent:—

BARNETT'S LIQUID IRON ASPHALTE.—This can be made either of natural or artificial asphalt, mixed with pulverized iron ore or sesquioxide of iron and a small proportion of mineral tar; it may also, under the patent, be composed of other ingredients, but Mr. Barnett states that that which is intended to be used here is similar to that just described. About 1,000 yards of it are to be laid in Moorgate-street as an experiment, adjoining specimens of the Limmer liquid, and the Val de Travers compressed asphalt. The price, with the foundation, is to be 13s. 6d. per square yard, 4s. 6d. to be paid at the expiration of the first year, another 4s. 6d. at the end of the second year, and the remaining 4s. 6d. at the end of the third year, provided that the pavement at the end of each financial year is in a good condition. Mr. Barnett's responsibilities are to cease at the end of the third year. Mr. Barnett states, however, that he will undertake to maintain the pavement for about fifteen years, at about 1s. 4½d. per square yard per annum, measured over the whole surface. Three specimens of this asphalt have been laid in carriage-ways at Paris; one in the Rue de Goussé in 1867, one in the Guichet de Carrousel about two years ago, and one in the Rue Vaugirard, near to the Luxembourg Palace, laid about eighteen months ago. I have inspected those in the Rue de Goussé and the gateway of the Carrousel. The traffic over the former is not inconsiderable for Paris, and that in the gateway of the Carrousel was large, before the war broke out; what it has since been I cannot say.

MCDONNELL'S PATENT ADAMANTEAN CONCRETE PAVEMENT.—In April, 1869, about 757 square yards of the carriage-way of Carter-lane were paved with this material, which is composed of blocks made with broken stone, chalk, lime, and clay, mixed with vegetable or mineral pitch or tar. The price per square yard is 20s., seventy-five per cent. to be paid within two months after the completion of the work, ten per cent. at the expiration of two years, and fifteen per cent. at the expiration of three years, provided the pavement is at each period in a good state of repair; at the end of the third year the contractor's responsibility ceases. The traffic over it was until recently about 700 carriages daily in twelve hours; it is now less, owing to Queen Victoria-street west of Bennett's-hill having been opened.

GRANITE PAVEMENTS WITH ASPHALTE JOINTS.—The ordinary mode of forming granite pavements in the metropolis is to fill up the joints with lime grout, which prevents the surface water from sinking between them into the foundation, and makes the pavement compact and solid. Pavements jointed with asphalt having been used in Manchester, and other northern and midland towns, the Commission determined to try it in the City, and an experiment was accordingly made in Duke-street, Smithfield, in May, 1868. The traffic which passed over the pavements when first laid was about 3,800 carriages daily, between 8 a.m. and 8 p.m., but when the Holborn Viaduct was opened in November, 1869, it fell to about 2,100 carriages, which is its present daily traffic during the same hours. In 1870, 574 yards of the carriage-way of Fleet-street, next to Temple-bar, were also formed with asphalt joints, the stones being Aberdeen granite, three inches wide and nine inches deep; and 500 yards at the eastern end of St. Paul's-churchyard, near to Cheapside, were also formed of the same material and in the same manner. This work was done by the contractors to the Commission.

Tables of the comparative cost of granite and asphalt pavements are given in the report. These tables show generally that the first cost of the compressed asphalt of the Val de Travers, in the principal streets, is about the same as that of granite, and that those of the Limmer, Mr. Barnett, and the Val de Travers liquid, are somewhat less—but that the repair and maintenance of all of them will be greater, if calculated upon the terms of years over which their maintenance is contracted for.

Table showing comparative cost of granite and asphalt carriage-way pavements, in some of the principal streets of the City, the asphalt being assumed to last four years, without repairs, beyond the periods of maintenance contracted for.

Situation.	GRANITE.			ASPHALTE.			Difference of Cost per yard.	REMARKS.
	Estimated duration of Pavement.	Total Cost per yard per annum.	Estimated duration of Pavement.	Total Cost per yard per annum.				
	Yrs.	s. d.	Yrs.	s. d.	s. d.			
Cheapside	15	1 7½	21	1 10	0 2½		Increased cost of Asphalt (V. de Trav)	
Poultry ..	8	2 9½	21	1 10	0 11½		Decreased do.	
Old Broad-street ..	20	1 0½	21	1 2½	0 2		Increased do.	
Moorgate-street ..	15	1 4½	22	1 5	0 6½		Decreased do.	
			21	1 2	0 2½		Increased do. (Barnett's)	
			21	1 2	0 1½		Decreased do. (Limmer)	
Lombard-street ..	20	1 6½	21	1 2	0 1½		Increased do.	

CONVENIENCE.—The surface of the asphalt being smooth and without joints, the labour in the traction of vehicles is much reduced; in fact, the wheels run almost as easily and as smoothly as they do on a street tramway, and, consequently, carriages are less jolted, and the fatigue to passengers and to horses is diminished. The asphalt is much less noisy under traffic than granite, but not so noiseless as a wooden pavement, and it is this absence of noise which is the principal inducement to use it. If even the main thoroughfares only were laid with it, the comfort to all passing through them, and to the inhabitants in them, would be very great. So many persons, however, are now acquainted with the pavements in Cheap-side, the Poultry, and other places in the City, that it is unnecessary to advert to this point further, inasmuch as the convenience and comfort which asphalt gives must be admitted by all. From close observation, I think that the asphalt is not so noiseless after it has been down two or three months as it is when first laid; and that this is attributable to its compression and solidification under the traffic.

SAFETY.—This depends at times largely upon the condition of the surface in respect of cleanliness. In ordinary dry weather, or when it is very hot and dry, or very cold and dry, it is less slippery than granite. If heavy rain falls, it makes the pavement clean at once, and it dries up without causing slipperiness, nor is it very slippery during heavy rains, although more so than when dry. Two falls of snow occurred last winter, and it was upon those occasions found to be not more slippery than granite. On one occasion a sharp frost ensued after rain, and the granite pavements in the City became slippery, but the asphalt dried quickly and was not slippery at all. I have in Paris, however, seen it when hard frost ensued immediately after rain, and it was then exceedingly slippery; and this was remedied by slightly strewing the surface with sand. Such occasions are not frequent in this country, and when they occur, the remedy must be by a similar process. The smooth macadamised roads in the metropolis on such occasions are quite as slippery as asphalt would be. Immediately after slight rainfalls, or just before dryness ensues after rain, the asphalt, if not strictly clean, is more slippery than granite. The time this slipperiness lasts depends upon the weather and the state of the cleanliness of the surface; but the asphalt, being impervious to moisture, dries so rapidly, if clean, that the condition does not usually last long. I noticed during the past eight months that it rarely lasted more than a quarter of an hour, but that during that time it was everywhere undoubtedly much more slippery than granite. Upon such occasions, strewing it slightly with sand at once remedies the evil, and for this purpose the street orderlies now have always sand at hand. Washing it, if practicable, would have the same effect. If, however, a granite pavement be worn smooth and be dirty, then, under slight rain, the difference in respect of slipperiness between asphalt and granite is less than if both are tolerably clean.

The remainder of the remarks on this head may be shortly summarized. The conclusion at which Mr. Haywood has arrived after having made inquiries of the drivers of the London General Omnibus Company, through its secretary, Mr. Church, of the inspector of pavements, and of the police, is that the number of horses which fall upon the asphalt pavement is certainly not greater than that which fall upon the granite. It should, however, be stated that Mr. Church does not coincide with him in that view, but, on the other hand, Captain Shaw, Superintendent of the Fire Brigade, says that the heavy fire engines of the brigade travel upwards of 20,000 miles a-year, at great speed, over the thoroughfares of the metropolis, and that he is convinced that there is less danger in travelling over the asphalt than over granite, and that it is much easier for horses, and safer for heavy, fast-going carriages. Captain Shaw adds that the horses of the brigade which had fallen on granite were usually more or less cut and injured, but of those which had fallen on asphalt not one had hitherto been injured in any degree.

THE RESTORATION OF GOWRAN CHURCH.

SOME rebuilding and alterations are proceeding at the parish church of Gowran, according to the designs of Mr. Wyatt, architect, of London. The *Kilkenny Moderator* makes objections to certain parts of the work, and considers some of the alterations made by the architect are in very questionable taste. It thinks as to the

“Entrance to the church (as now being rebuilt), Mr. Wyatt's original plan was that it should be through the ruins of the ancient nave, the door being placed where it had been before the re-building of the choir, early in the present century, in the lower storey of the belfry tower. But interments have since taken place very thickly in the old nave, so that any path through the ruins must of necessity pass over several graves. To avoid this, Mr. Wyatt arranged that a doorway should be made from the exterior into the tower, in a place where the wall is already arched for the purpose of admitting a loophole or small light; so that the entrance to the re-edified church, in place of being connected with a passage through the ruins of the nave, will be in close proximity to the place in which the former chief entrance to the choir was, but passing in through the tower. We can only say that we regret very much that the original features of the old tower are to be at all interfered with, even so far, and we do hope that if a doorway is there made, care will be taken that it shall be in as close keeping as possible with the original architectural details. Great caution seems to us to be necessary in meddling with the tower in any way,

for one of the piers on which it is supported seems in a very shaky state. We are very sorry to perceive that it was deemed necessary to remove altogether the lower vaulting of the tower, apparently with the view of giving the same elevation as the choir roof to the portion of the heltry which will form part of the church. However, that which most offended our eye, in a late inspection of the building, was the apparent intention of permitting the south door of the recent church still to continue in its original design of ‘Churchwarden's Gothic.’”

There are some other matters in connection alluded to by our contemporary, which it seems to think will mar the entire design of restoration.

PLANTS IN ROOMS.

WHOEVER desires to convert a room into a sort of winter-garden, by means of suitable ornamental plants, should choose for this purpose a corner room which has windows on both sides, and is more or less exposed on both sides to the sun. The larger and higher the windows, and the lighter the room, the more favourable will it be for the culture of plants. Light-coloured paper, or light colouring on the walls, is also advantageous in this respect. Dwelling-rooms, which are generally warmer and more dusty, are less suitable for this kind of culture, and for decoration with ever-green stove-plants, than reception-rooms, the temperature of which in winter averages from 55 deg. to 60 deg. Fahr. However, some kind of vegetation will be found to thrive in almost every kind of apartment, and in those that are kept dry we may have numbers of Mesembryanthemums and other succulents, if nought else.—*The Garden.*

THE LANGUAGE OF THE CELT AND CYMRI.

AT the Liverpool and Birkenhead Gordovie Eisteddfod, held a few days ago, the President, Mr. John Rhys, B.A., Fellow of Merton College, Oxford, and one of her Majesty's Inspectors of Schools, gave utterance to the following interesting remarks concerning the language of the Celt and Cymri:—“The Welsh was still to a great extent the language of Wales, and was represented by about thirty periodical publications published in Wales, America, and Australia. Irish patriots envied Welshmen the vigour of the old language, but he would gladly exchange it for the voluminous literature possessed by Irishmen in the library of Trinity College, Dublin. Since the last general election, or, as he might call it, the revolt of the Celts—Welshmen had succeeded in making their claim heard in high quarters, and a Parliament founded upon a Celtic majority found it expedient to listen with some deference to their complaints. What with the clamour of Welsh bishops and Welsh county court judges, many people seemed to have been persuaded lately that the Welsh language was reasserting itself. That, however, was a mistake; for the language was undoubtedly going the way of all the earth, and in more ways than one. Welsh publications could not be accepted as a true idea of its vitality, and frequently presented, in a gaudy, ugly kind of patchwork, English idioms, clothed in Welsh phraseology. The prospects of English in the Principality were very encouraging. There the Education Department was carrying on with vigour and energy a most important work, and a little squabbling here and there served only to show how zealously Welshmen were taking up the education question. From his own experience of certain districts he could say it was possible to teach the children of Welsh parents English with hopes of success; whereas in those parts in the county of Flint, for instance, where the Cheshire dialect had covered the border, he should despair of attaining to any permanent result. In fact, we might safely predict that a generation not far off would find respectable English in general use in North Wales,

while the Cheshire bucolic would perhaps continue for ages to come in undisputed enjoyment of that jargon which he now found was admirably suited to his mental calibre."

The proceedings of the Eisteddfod were conducted in the language of the Welsh, and in the afternoon prizes were awarded to the successful competitors in poetry, prose, music, art, &c. Mr. Rhy's, we would infer from his name, is a native of the Principality, and one might have expected from him a more encouraging account of the state of the Welsh language than what he has given. He, however, pays Ireland a compliment through her literature, and as it is not always we have a due recognition of our resources acknowledged across the channel, it gives us some pleasure in this instance to record it.

JOHN AHERON, ARCHITECT; AND OTHERS.*

IN relation to John Aheron, his patrons, English and Irish, and his works, we have gleaned the following particulars through several channels not generally accessible. It is quite certain now that he erected Stradbally Hall, Queen's County, and a mansion at Rockforest, County Cork, the designs for which appear in his "General Treatise of Architecture," along with other buildings throughout Ireland previously to the date of his published work.

Pole Cosby, for whom Stradbally Hall was built, was a descendant of Francis Cosby, who, on the dissolution of the religious houses in Ireland, came into possession of a large property in the ancient parish of Ochmills, Stradbally. The monastery, with its mills, castles and lands, containing 345 acres, was granted, August 18th, 1592, *in capite* by knight's service, to hold of the castle of Maryborough, to Francis Cosby, his heirs and assigns, at the annual rent of £17 6s. 3d. Irish money, they to find yearly *nine English horsemen*.

On the 4th of December, 1609, a new grant was made to Richard, son of Alexander Cosby, who repaired the castle, and removed the parish church from Ochmills to the town by building a new one, which church, having gone to decay, was rebuilt in 1775 in the general style of that period. The said Richard Cosby also obtained a charter for weekly markets and annual fairs. The old parish church of Ochmills was converted by Pole Cosby, lord of the soil, into a mausoleum or burying-place for his family. There is little doubt but Aheron was engaged on this work as well as the mansion. The castle spoken of was surrounded by a fosse, but was eventually pulled down by the Cosbies, who built a fortified house in its place; but this also disappeared some time in the last century. In the year 1771, Cosby, Lord Sydney, commenced the erection of what was intended to be "a noble house," in the language of the times, a little way outside the town, south-west of the ancient castle, but he only lived to see the offices and one wing completed. At the close of the last century the estate, which comprised a highly-ornamented demesne, belonged to Admiral Cosby. In the same neighbourhood, in 1768, and probably during Aheron's life, the Earl of Roden built a family mansion, Brockley Park. This building was erected under the direction of an Italian architect of the name of Ducart. It was raised upon the site of a former one, which was burned down.

Aheron gives in his work several designs for charter-schools, and we find that a charter-school was erected about his time in Stradbally. Indeed, the erection of charter-schools in the middle of the last century was very rife all over Ireland. What other particular works Ducart was engaged upon we have yet to learn; but the occurrence of his name and his presence in Ireland go, perhaps, to account for his being at least one of the band of foreign architects and artificers, Italian and German, who were both brought over and invited by members of the Irish nobility,

* From the Builder.

from the middle to nearly the close of the eighteenth century. Several Italian artificers, scagliolia and stucco plasterers, made Dublin famous, during the eighteenth century, by the high artistic character of their plaster-work in public buildings and the mansions of the nobility. After a short while, however, the native stucco-workers rivalled them; but the once high excellence of this class of building ornaments and enrichments died out early in the present century in Dublin. Sir Gustavus Hume, of Castle Hume, in the county of Fermanagh, invited over Richard Castles, a German architect, some time between 1732-40. The German obtained extensive practice in Ireland from the nobility, and designed several public buildings in Dublin. He remained in Ireland until his death, well patronised.

HARD KNOCKS;

OR, THE AMENITIES OF THE PRESS.

"VENAL strumpet of the Press"—
Hard Knocks.
"Cowardly and talentless"—
Hard Knocks.
"Cashiered band-boy and buffoon;
Vile, foul-mouthed old bassoon—
All, through one revolving moon!"—
Hard Knocks.
Answer, "profligate," to these
Hard Knocks.
Does it spoil your bread and cheese?—
Hard Knocks.
Does the "Kettle" know the "Pot"
Bargained long for what it got?
Throwing dirt, itself "dry rot"—
Hard Knocks.
Man of War, most puissant Mars!—
Hard Knocks.
"Done brown," dead squelched by D....r's
Hard Knocks.
Wire in—go it, "I.... T....
Brown with mud and black with crimes;"
See, the S..... rings the chimies—
Hard Knocks.
Pitch in, Larry. Kick him, Val,—
Hard Knocks.
"Be he Col. or Corporal"—
Hard Knocks.
Kilkenny cats show their mettle;
Leave their tails the feud to settle.
Plague upon ye, "Pot and Kettle!"—
Hard Knocks.

CIVIS.

WASHING v. SCAVENGING.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—While this matter is uppermost, and the recollection of last week's mud sticks as fast in our minds as the mud itself did to our clothes, it may not be amiss to give a suggestion on the subject.

I propose to show how Dublin might be the cleanest and healthiest city in the kingdom. That it is not so now, is too evident to need a remark—that it might be, will appear as a conclusion from the following considerations:—

Firstly.—Water is the best brush, the best sweeper, and the best carrier of mud. As a brush, it sweeps clean—leaves nothing behind—and never wears out; as a sweeper, it lags not, and in transporting mud the first thing it does is to lighten it by nearly half its weight.

Secondly.—The surfaces of macadamized roads are rapidly destroyed if either kept in a state of continued moisture, by being precluded from the drying effect of the atmosphere under a coating of mud, or subjected to extreme drought, which allows the binding material to be dissipated as dust—more disagreeable, if possible, than mud. Ordinary scavenging is adopted to meet the former state, and road watering, or rather sprinkling, to remedy the latter—both equally ineffectual. Washing and drenching with abundance of water will alone meet both cases by completely removing the mud and preventing the dust. If macadamized roads of properly-rounded sections are washed, instead of scraped and watered, the wear of the surfaces will be diminished to an extent hardly to be credited. The application of washing, instead of scraping, to paved or asphalted roads commends itself to any reasoning mind.

Thirdly.—It will hardly be questioned that the washing away of those depôts of filth, from whence proceed the delightful vegetable and animal molecules and fungi (investigated by Prof. Tyndall) which dance in the summer sunbeams that stream through our narrow, crowded streets, and the absorption of noxious liquids, and these effluvia gases which flow along their dirty channels, would remove many sources of disease and death. In a sanitary point, street-washing ranks almost equal to good sewerage.

Fourthly.—Dublin is abundantly supplied with water for domestic purposes of great purity and softness; it is also encircled by two high-level

canals, well supplied with water, and plenty to spare, and so high as to command every street in the city. The ground, moreover, falls evenly at both sides to the River Liffey, which is a tideway of sufficient force to carry all fine street washings out to sea.

Upon these considerations, it does appear that washing is the proper way to scourge a city where circumstances favour such a mode, and that in Dublin all things combine to favour the adoption of water as a means of cleansing and preserving the streets. One only objection can be urged—namely, that the silt would injure the port, by being deposited inside; but this would not be so; on account of the fineness and lightness of the stuff, it would be suspended till carried out to sea. The quantity would be very small, as it is not to be imagined that by each week's washing, one-tenth of the mud now lying on the streets would have to be conveyed away. In fact, little or no mud would be accumulated in so short a period; and granted that some would be deposited, it could be removed by dredging, at one-fourth the cost of scraping and carting under the present system. Besides, the washings might be so arranged as to take place only at strong ebb-tides.

To carry out such a scheme practically, it would be advisable, in the first instance, to test it experimentally on a few streets, and, if it succeeded, to utilize the existing sewers, which will be, in a great measure, disused (I suppose) under the new sewage work, through which sewers the street washings and rain-fall might be conveyed into the Liffey. This rain-fall, which might be from eighty to a hundred million gallons in twenty-four hours, should not be conveyed by the proposed new sewers; they need only be capable of discharging the house sewage, being much smaller in quantity, and more easily dealt with from its uniformity in amount. The expense to be incurred in laying a distinct set of pipes and hydrants would be amply recouped by the saving of the present large outlay on scavenging, repairing, and watering the streets; the pipes may be lighter and much less extensive than the existing Vartry pipes.

The city might be divided into twelve sections, one at each side of the river being washed on each of the six days in the week; thus the whole city would be cleansed weekly. As a further advantage gained, the necessity for mud depôts, not very easily procured, would be done away with.

It is remarked in those cities where street-washing is in use, that the inhabitants, though not publicly washed, are yet morally constrained to have their persons and houses, at least, as well washed as the streets; and as Dublin is improving in other respects, there is, perhaps, room for improvement in this.—Your obedient servant,

JAMES PRICE.

Highfield, Dublin, Dec. 28, 1871.

THE DIRTY STREETS OF DUBLIN.

TO THE EDITOR OF THE DAILY EXPRESS.

SIR,—In your issue of the 26th inst. the scandalous state of the streets is prominently brought forward, not only in your leader, but in the practical, common sense letter of your correspondent. It is, however, an error of "Taxpayer" to suppose that men incapable for the simple management of horse-work could or would advantageously direct or control steam-work. Were it only for sanitary purposes, the present vile state of the streets should be reformed, more particularly as small-pox and fever (the effect of the cause) are now adding victims to the death-rate of Dublin. Recent events prove that preventable disease is "no respecter of persons."

In 1867 I was retained by Mr. Ramsbottom, the Corporation contractor, to advise him on the then state of the streets, which necessarily caused me to make a minute survey of all the roadways included in his contract. From this examination, and from a former survey of them in 1856, I am of opinion that they are now (as regards repair and scavenging) in a worse condition by ten per cent. than they have been in for the past sixteen years. The surface material on most of the streets is nearly worn off. Hence the loam from the sub-stratum is expressed up in a continuous and never-failing supply of liquid mud, the sure indication of autumnal neglect. When the streets are now in such a deplorable condition, in what state may we expect to find them in February?

If only for economy in street repair and maintenance, the mud coating should be promptly removed from off the roadways, as it softens their surface, promotes disintegration and rapid wear of broken stones, all of which greatly increase traction and horse-labour. These evils by no means represent the extent of the mischief; we must, in addition, include injury to fancy merchandise displayed in windows

and warerooms, to house decorations and furniture, personal discomfort and labour in street travelling, with additional wear to our clothes, and the rapid destruction of the frame-work and painting of the numerous vehicles that traverse the streets. These evils are clearly traceable to defective road repair and scavenging. If we are to judge from past experience, they will not only continue but increase, if the present system of mismanagement is persisted in.

What would be thought of the broker, merchant, or manufacturer, who overcrowded his establishment with men incapable of performing the duties they engaged to fulfil? and what would be the result? There is no immunity for those directing road-making who transgress the inflexible laws that hasten ruin or success, to the banker, merchant, or manufacturer—all are alike amenable to the law's arbitrary rule.

The sum of £3,000 per annum in addition to the present expenditure is totally insufficient for the adequate maintenance and scavenging of the streets if the present method of work be continued. You are, however, quite right in saying, "We have no doubt if the members of the Corporation were really desirous to remove the scandal, they would find expedients for diminishing the cost which they say they have no funds to meet."

From lengthened and extensive experience, directing the repair and scavenging of streets and roads, similar to those within the borough of Dublin, I unhesitatingly assert the sum now with great success expended in mud manufacture on the streets is quite sufficient to repair and scavenge them effectually; and, as a proof of the practicability of this proposition, I will engage to direct and superintend the engineering connected therewith, and bring the whole of the streets contracted for by Mr. Ramsbottom into perfect repair within three years; during this period I am only to receive whatever sum may be expended on car-hire, which can be limited to that required for the work to be performed. If I fail to bring the streets and the scavenging to a specified perfection, then the Corporation are to be relieved from all further cost for my services, and if I fully carry out the engagement, then I am to receive £9,000—the three years' saving—for the lesson; or the Corporation, at their option, may pay £2,000 for the three years' professional service, and the balance by a contract for repair and scavenging for a suitable period. In this event, I will take at a valuation all the workable plant that may be in the possession of the Corporation. The cost of maintaining and scavenging is not to exceed the average cost of the past five years. For which sum I will, during the contract, continue to maintain the repair and scavenging of the streets in suitable perfection, according to a specification, practically drawn, for the work required to be performed.

R. H. FRITH, C.E., M.R.I.A.

Dublin, 28th Dec., 1871.

TENDERS.

For additions to the Carlow Lunatic Asylum. Mr. Wilkinson, architect:—

O'Brien, Ballinasloe ..	£14,029	6	6
McGaughey, Omagh ..	13,849	9	0
Messrs. Wardrop, Dublin ..	13,212	15	0
Lynch, Carlow ..	12,303	0	0
Faircloth, Carlow ..	12,100	0	0
Messrs. Ryan, Waterford ..	11,455	0	0

* Accepted.

MISCELLANEOUS.

His Excellency the Lord Lieutenant has sanctioned the appointment of Mr. John Murray, architect, as surveyor for Dundalk, under the Towns Improvement Act.

The annual meeting of the Royal Historical and Archaeological Association of Ireland will be held at Butler House, Kilkenny, on Wednesday, the 17th instant. The chair to be taken at two o'clock. Members have the privilege of introducing friends.

THE WATKINS FUND.—We have great pleasure in announcing that his Excellency Earl Spencer has intimated, by an official letter to the committee, that a sum of £50, royal bounty, has been awarded to Mrs. Watkins, widow of the late Joseph Watkins, R.H.A. His Excellency expressed his regret that he was not able to grant her a pension.

THE TEMPLE OF BAALBEK.—A Scotchman sends a letter to the *Times* suggesting that the noble Temple of Baalek is in far greater danger from the spoliation of tourists than the influences of the weather. Every one who reads his experience will

agree with him. He saw a party of Americans carry off a whole sackful of most beautiful mouldings, which they had broken off with their hammers, while a youth, with paint-pot and brush, wrote his name upon a column in letters of a foot in length! The young Yankee, unfortunately, had had a bad example set him, for many other descendants of monkeys had done the same thing; but he was evidently an imbred Vandal, for he boasted of having written his name on every temple up the Nile! Of course some disgrace attaches to the Turkish Government for permitting such practices.

MUNIFICENT DONATION.—Samuel Martin, Esq., of the firm of Messrs. John Martin and Co., of Killyleagh, County Down, and Anne-street, Belfast, has purchased that beautifully-situated property known as "The Throne," on the Antrim-road, about three miles from Belfast, one of the healthiest and most picturesque sites in the vicinity. This fine property, extending over twenty-eight acres, Mr. Martin intends to hand over, clear of rent, to three trustees, who are Dr. Pirrie, Michael Buckley, Esq., solicitor, and Vere Foster, Esq., for the following purposes:—One-half will be devoted to the erection of cottage hospitals for orphan children, preference being given to those suffering from spinal affections. On the construction of these hospitals, Mr. Martin proposes to expend £2,000, and to give them an endowment of £1,000 a-year for at least five years. The other moiety of fourteen acres he proposes to give to the Belfast General Hospital as a site for a convalescent hospital—an adjunct to the present excellent institution which has been long wished for.

THE NEW LAW COURTS, (LONDON).—The foundation stone for the new courts of law, which have been in progress during the last twelve months, by Messrs. Dove Brothers, the contractors for this preliminary portion of the work, are now almost completed. The foundations for the large central hall are entirely finished, the whole of the concrete bed having been laid, as also are the foundations for the courts on the east and west sides of the hall, the whole being prepared and now ready to receive the superstructure, which might now be commenced at once, provided the plans were ready and the contract entered into; and it is now confidently understood that this will not be much longer deferred. The only remaining portion of the work now to be done connected with Messrs. Dove's contract is the eastern foundation near Temple-bar for the offices and other buildings connected with the intended structure, and the concrete bottom is already, to a large extent, laid at the south-east angle, the excavations at the other portion being in progress. The retaining wall at the extreme north area of the ground, 500 feet in length, has also been built. It is of great strength and thickness, varying from eight feet to five feet in width, and is twenty-five feet in height from the base to the top of the parapet. The wall is constructed in what may be called Gothic arcading, there being about eighty arches within its entire length. During the progress of the works 140,000 cubic feet of earthwork have been removed; and it is perhaps worthy of remark that, although the site is associated with many historical recollections, nothing of the slightest interest, antiquarian or otherwise, has been found, the only article of value being a large and profitable bed of gravel. The time for the completion of the foundation is February next.

The committee formed at Rome for dredging the bed of the Tiber, with a view to the recovery of a portion of the vast artistic and antiquarian treasures which are, with good reason, believed to lie beneath the waters, are going to work in good earnest. The movement is entirely a patriotic and artistic one, all idea of commercial profit from the undertaking being renounced beforehand. The committee have published a letter from Theodore Mommsen to Castellani, in which the German scholar holds out encouragement to the "noble enterprise, which cannot fail to awaken the highest interest, and to deserve the loudest applause of the archaeologists of all countries, as well as of those who know that our present civilisation is grafted on old Roman culture, so that what is now the capital of Italy is, in a certain sense, the capital of the whole world." Herr Mommsen has no doubt that the contemplated undertaking will lead to the discovery of great artistic and archaeological treasures, "especially in bronzes."

A SHAM MONEY-LENDER CAUGHT.—At Bantry Petty Sessions a man named Smith (from London) was put on trial, for advertising "money to lend at moderate repayments spread over a number of years, to suit borrowers' convenience." It appeared Smith advertised, under different aliases, and obtained inquiry-fees from several, and, in some cases, the first year's interest on the promised loans. Amongst the number one Bantry

man, after a lapse of time, acquainted the police, who put the detectives on his track. They speedily unearched the swindler, and brought him to Bantry from London. He attempted to drown himself by jumping overboard *en route* for Cork, but was prevented; he, however, succeeded in throwing himself off the coach, near Bantry. He was returned for trial to the Cork Assizes, when, it is rumoured not a few from this neighbourhood will be called upon to give evidence, as their letters were found in his possession.—*West Cork Eagle*.

BREAKFAST.—Epps's Cocoa.—GRATITUDINAL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—JAMES EPPS & Co., Homoeopathic Chemists, London. Also, makers of Epps's Cacaoine, a very thin beverage for evening use.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filled with vestas, at one penny. Any Tobacconist, Grocer, Chemist, or Chandler will supply it.

REPORT OF DR. ARTHUR HILL HASSALL ON MAYAR'S SEMOLINA.—"I have carefully tested, chemically and microscopically, the samples of Semolina sent by Messrs. L. Mayar and Co., 36 Mark-lane, E.C. I find them to be perfectly genuine, of excellent quality, and eminently nutritious. They contain a very large percentage of nitrogenous matter, chiefly gluten, and are far more nutritious than any other food, such as Arrowroot, Tapioca, Sago, Corn Flour, Farinaceous Food, ordinary Wheat Flour, or any of the Cereals in use as food in this country." (Signed) "Arthur H. Hassall, M.D., London."

TO CORRESPONDENTS.

CELTIC ARCHITECTURE.—The first portion of Mr. Brash's valuable contribution appears in our issue of to-day. We would direct attention to the view of the writer, for we believe he establishes the truth of a long-contested point, and one which has engaged our close study as well as others. The antiquity of stone building in Ireland is more remote than what many could suppose, and Mr. Brash's contribution to our ecclesiastical architectural history will be of no small value. The civil and military architecture of Ireland are other divisions of the subject which must sooner or later be entered upon and exhaustively treated. The rise and progress of architecture in Ireland needs to be practically treated and divested of all mere antiquarian theories.

SANITARY PROGRESS.—City and provincial affairs are touched upon elsewhere in our columns to-day, and, in consequence, we must stand excused from giving in our present issue the usual chronicle of town and country doings in sanitary matters.

THE FORTHCOMING IRISH EXHIBITION.—Enquiring correspondents will find the subject they write about treated elsewhere in this issue. Mr. Lee, the gentleman to whom is entrusted the management, will afford every information. Particulars will, however, be issued shortly in every matter tending to facilitate the labours of those who may feel an interest in the success of the exhibition and are anxious to contribute to it.

HOME AND FOREIGN LITERATURE.—We are obliged to hold over a notice of several new works recently issued on matters connected with architecture, arts, sciences and practical literature.

THE DRAINAGE OF THE THAMES VALLEY.—We may have something to say in our next concerning Mr. Bazalgette's new drainage project. Dublin has reason to regret Mr. Bazalgette's having anything to do with her sewage. In his new character he appears in the sister kingdom as a sewage utilizer, though hitherto he has done more than any living engineer to throw valuable sewage away, pollute our rivers, and choke up the entrance to our harbours.

A SUPPLEMENTARY NOTE.—In our opening review some matters connected with our advocacy had of necessity to be omitted. Though not included, they will not be forgotten. It was our intention to have instanced the decease of some native architects, whose loss the country and the profession deplore. We hope, however, during the year, to make the *amende honorable*, in the meantime apologising for all our sins of commission and omission.

NOTICE.

Blue wrappers are sent to those of our Subscribers who are in arrear. It is requested that all arrears, together with subscription for current year, may be remitted immediately after receipt of this number.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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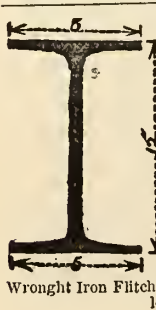
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[Read this with care and attention.]

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24 PRIZE MEDALS

in the Grand Exhibitions for its superiority over all others, and is
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both in London and in Paris, to be far more Nutritious than Tapioca,
Arrowroot, Corn Flour (which are only Starch), or any farinaceous
food already introduced into this country. See Dr. Hassall's Analytical
Report in the columns of this paper.

Being determined to maintain its reputation, we again CAU-
TION the Public, that an imitation, to which a false and ridiculous
name has been given, is introduced by a well-known Firm, taking ad-
vantage of its name and publicity to sell a similar article of very infe-
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article the qualities possessed by our Semolina.

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TESTIMONIALS.

From WILLIAM TITE, Esq., M.P. for Bath, and Architect of the
Royal Exchange, London.
House of Commons, 2nd March, 1864.

DEAR SIR,—In reply to your note, I beg to say that I have
used both the sorts of Cement manufactured by your firm, and
that of Messrs. Francis and Son; I mean the Cement usually
called Roman Cement, or the more recent introduction of
Portland Cement. I believe these Cements, manufactured by
either of your firms, to be equally good. I know no difference,
chemically or practically, between them; and I should
use, and authorize to be used indifferently, either one or the
other. You are at liberty to use this note, if you think it ne-
cessary.—I am, Dear Sir, your obedient servant,
Messrs. White & Son. (Signed) WILLIAM TITE.

From R.O. MINNIE, Esq., Surveyor to Board of Ordnance, London.
War Office, Pall Mall, London, S.W.,
3rd March, 1864.

GENTLEMEN,—In reply to your request, I have much plea-
sure in stating my favourable opinion of the quality of your
Portland and other Cements, which have been extensively
used in the Public Works connected with the War Department
at home and abroad, especially in several of the fortifications
now being erected in this country. On all occasions within
my knowledge the quality has been equal to that of any other
manufacturer, and has given great satisfaction.—I am, gen-
tlemen, your obedient servant,
(Signed) R. O. MINNIE, Surveyor.

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The Irish Builder.

VOL. XIV.—No. 290.

Irish Schools of Art.



WE are glad to record a growing evidence in Ireland of the inestimable advantages accruing to our people, particularly to the growing generation, from the establishment and steady progress made in our native schools of art. Foremost amongst them are the schools of Dublin, Cork, and Belfast. There are also other provincial establishments that are working bravely under many difficulties, and with the greatest credit, considering their limited resources. The Belfast School of Art is under able management, and has had the luck to obtain serviceable and influential local patronage from those who can appreciate the value of art instruction, and the benefits it will confer on our future art workmen and craftsmen. The Dublin Society's School of Art is also managed well, and has secured the services of an excellent head master. Cork, in the worst of times, has turned out excellent students and artists, who have made a name and earned a lasting reputation in the domain of art.

An inspection was held a few days since by the Lord Lieutenant, accompanied by an influential and respectable body of professional and other gentlemen interested, of the designs exhibited at the Dublin School of Art, and numerous prizes were awarded. In the several designs in relation to textile fabrics, Belleek pottery, architectural drawing, landscape drawing, anatomical study, figure drawing from the antique, designs for china plate, flowers and foliage, patterns for carpets, designs for muslins, models, designs for hall and ceiling decoration, and of several others of an ornamental and useful description, a great amount of proficiency was evidenced on the part of the pupils of the Dublin School of Art. Indeed, in the matter of the designs for porcelain, damask, tapestry, poplins, curtains, lace, wall decoration, and carpets, the articles were of a most improved and gratifying description.

To Mr. Sheridan, of Parliament-street (to whom this city is indebted for his suggestions and aid), and to Mr. J. S. Brown, Belfast, a great deal of these happy results we are describing are due. Miss E. Irwin was successful in winning the prize offered by Mr. Sheridan, for her excellent designs for carpets, a manufacture which has been much developed by Mr. Sheridan. Miss Magee carried off the highest money prize for her designs for table damasks, offered by Mr. Brown.

The stimulus given by these exhibitions will produce higher efforts on each occasion, and we may hope to see, in a few years, the Dublin Society School of Art in the position that it ought to have occupied long since, judging it by the standard of age. Mr. Lyne, the head master, is turning out some very expert pupils in their various branches of study, and he deserves the commendation he has recently received.

The following is a list of the Society's

prizes and the persons to whom they were impartially awarded for undoubted merit:—Figure drawing from the antique—Miss Arnold. Head painted from the life—Miss Anne Parnell; that of Miss Phoebe A. Mosse, highly commended. Chalk drawing from the antique (head, hand and foot)—first, Miss P. A. Mosse; second, Miss Alice Lee. Model from the antique—Miss Kate O'Brien; Mr. Edward Bestick, commended; Mr. James Neville, honourable mention. Designs for muslins—Miss Maria D. Webb. Damasks—Miss Magee, and prize of £5 offered by Mr. J. Brown; Mr. J. Mills, and Mr. J. Brown's prize of £3. Mr. Robt. S. Smith, art teacher, recommended specially for a prize medal for bust from life; also Mr. Edward R. Byrne, art teacher, for sketches from nature in oils. Miss Jenny Connor, favourable mention. Outline of figure from the flat—Miss Mary Wild; honourable mention, Mr. Thomas E. Leadon. Design for carpet—Miss E. Irwin; also two guineas offered by Mr. Sheridan, of Parliament-street; 2nd, Miss M'Gloin. Two guineas offered by Mr. Sheridan for hall or ceiling decoration, Miss Ely Irwin, Miss Frances Brett, and Miss Elizabeth Bergin. Fans—Miss P. A. Moss, Miss Brett; Miss Irwin, honourable mention. Designs for china plates—Miss Frances Brett, and prize of three guineas offered by Mr. Leetch, of Dame-street; Miss E. F. Bredin, and prize of two guineas offered by Mr. Leetch. Miss E. Irwin, and Mr. Brown's prize of £2. Drawing to measurement of a public building—Mr. Boucher. Geometrical drawing—Mr. A. Scott. Perspective—Mr. J. Beardwood. Groups (in oil or water colours)—Miss Wise; honourable mention, Miss Poole. Group (in chalk)—Miss J. Bergin; Miss Eleanor Kerr, commended. Landscape—Miss J. Moffat; highly commended, Miss Maria D. Webb, Miss Maryanne Morgan. Flowers or foliage—Miss Josephine Carson. Sheet of flowers from nature—Miss Maryanne Magee; honourable mention, Miss Wallace and Miss F. Seymour. Ornament from the flat—Miss Archdall; do., shaded, Miss H. Thornhill. Ornament shaded from the round—Miss S. Ball. Ornament in antique from the round—Miss Mary F. Murphy. Anatomical study—Miss J. Garbois.

We would like to see the range of designs extended a little more in future exhibitions, so that all our arts and industries might be included. We have not too many branches of manufactures developed, nor can we have too many. The ornamental and the useful must be combined, and combined to create a pleasing and artistic effect. Better to have an article of porcelain or pottery simple and unadorned, but useful withal, than have a legion of so-called art productions, outraging art in every essential, and even at best, when tolerable to the sight, nothing more than pure *art manufacture*.

We want the country in every province ramified with schools of art until the genius and latent talent of this island is imbued with an art spirit, and every workshop in every town and village is a normal school of practical art instruction. Then and then only can we hope to win lasting triumphs in art and handicraft, and cope with the advanced schools on the Continent. It is possible for the Irish schools of art to effect this for our country and our workmen in one generation, or at furthest within two. Educate the youth of Ireland, and the triumphs of imperial Rome and classic Greece will arise transfigured on the soil of Ireland.

CURRENT LITERATURE—HOME AND FOREIGN.

THE publishing world is still lively and active in its every domain, and the book market full of works, good, bad and indifferent. Amongst the large quantity of works recently issued on almost every topic, there are a considerable number of most valuable and useful volumes, entitled to a standard, or, at least, to a prolonged popularity. A few of these we may instance in our notice. Messrs. Lockwood and Co.'s "School Managers' Series," adapted to each of the six standards regulated by the New Code of 1871, edited by the Rev. A. R. Grant, formerly an inspector of schools, are very excellent publications. Longmans and Co.'s "Text Book of Science; the Theory of Heat," &c., by Mr. J. Clarke Maxwell, M.A., Professor of Experimental Physics in Cambridge University, are useful and good. The phenomena of heat and its scientific belongings are popularly explained, and the latest extension of the knowledge thereon illustrated. "Homo versus Darwin," from the house of Hamilton, Adams and Co., furnishes us with further criticism on the "Descent of Man." The recent works issued by Messrs. Hachette and Co. are entitled to recognition and commendation, for among them are to be found some important contributions to various departments of the sciences. In that of "Les Races Humaines," we have a survey of the tribes and races of mankind from the eastern to the western hemisphere, classified under the headings of white, black, red and yellow races, their traits and characteristic features. M. Louis Figuier popularises science well for the instruction and amusement of youth, and familiarises the knowledge of race and country, by description and illustration, in a manner to earn deserved praise. The active and inimitable pencil of M. Gustave Doré illustrates Baron Davillier's "Journey in Spain" with architectural enrichments, and renders the Baron's text bright and pleasing. In "The India of the Rajahs," we have pompous pictures of Hindoo court life and architecture in well-executed woodcuts. Mr. Francis Wey's "Sojourn in Rome" is a contribution of much value, embracing a period from 1864 to 1870. Architecture and art treasures are here unfolded which will repay perusal and afford good information. The twenty-first and twenty-second volumes of "Tour du Monde" comprises portions of magnificently illustrated series, replete with a vast amount of diversified incidents and experiences abroad. "Ecclesia," by H. R. Reynolds, D.D. (from the house of Hodder and Stoughton), is a volume mostly theological, but there is an essay on "Art and Religion" which will command attention if it fails in making converts. "The School of the World" (Marshall and Co.) is a rather smart criticism on the present methods of imparting education. The author makes proposals to reduce reading to phonetism, grammar to common sense, and arithmetic to the decimal system. In his views we would go half-way with him. In the matter of the phonetic system, we fear there is little hope of a resurrection of that system from its present slumber for some generations. Mr. Pitman's disasters are yet fresh in the minds of the public, and though his shorthand is working an upper-hand place, his "Phonetik Nuz" is scotched; but, perhaps, to use an Americanism, we will see it once more "resurrected."

Cassell's "Technical Educator" is performing useful and valuable service in the

interests of the working classes. We think, however, if the Messrs. Cassell were to look up some intelligent and practical working men, and obtain from them the information they can afford on some of the subjects which their series treat upon, their publications in the technical educational line would be more valuable. The M.A.'s and B.A.'s and professors in our universities are not always reliable guides for working men. Minds trained to the manipulatory processes and methods of our workshops are of the class that should not be overlooked when works are compiling for the use of their brethren.

A new edition of an Irish work, Mr. Lecky's "Leaders of Public Opinion in Ireland," issued by Messrs. Longmans and Co., contains an introduction touching on the present state of affairs politically considered. In this volume we have the lives, and estimates of value thereon, of Swift, Flood, Grattan and O'Connell. The list, we think, might embrace earlier and later worthies who have led the Irish people to considerable distances, and though not always wisely, at least have done so honestly as far as their lights allowed them. However, this is a political question, and we had better leave it in the hands of Mr. Lecky and the politicians interested.

"Thoughts upon Government" (Bell and Daldy) is a most thoughtful volume of 230 pages. It is dedicated by the author, Mr. Arthur Helps, to Lord Derby. It embraces a wide range of subjects and considerations thereon with a view to improvements, public reforms and enactments, the government, the press, a statesman's education, the distribution of honours, commissions, the securing of able men for managing affairs of state and official duties, economy, national prosperity, foresight, imperial and local government, administration, and a variety of other matters hinging thereon. The art of government is an art that every petty vestryman and churchwarden thinks he can understand, and is wont to bore his constituents with his cogitations thereon; but the art of holding one's tongue, when one has nothing but the silliest commonplace to utter, is an art that is very much neglected, as the proceedings of our town councils very painfully and vividly show. We commend the perusal of Mr. Helps' book to would-be legislators and members of parliament, presumptive and *de facto*.

Another very remarkable and able work, issued by Longmans and Co., is "Prologomena to Ancient History," by John P. Mahaffy, A.M., M.R.I.A., Fellow and Tutor of Trinity College, and Lecturer in Ancient History in the University of Dublin. The substance of the work was delivered in lectures in our historic University, but in their published form they are pruned of local allusions and improved or amended. Firstly, the work treats of the interpretations of legends and inscriptions; and, secondly, of a partially exhaustive inquiry and exposition of old Egyptian history. The work embraces a wide range—on the methods of teaching ancient history heretofore, of an account of ancient histories and their comparative merits, and of the Egyptian language, its value and transformation through centuries, and of early civilization in that land. To philologists, whether Celtic or German, or to what other nation they may belong, Mr. Mahaffy's work will be suggestive and useful. We have the *Hieroglyphic* period, the *Hieratic*, the *Demotic*, and lastly, the *Coptic* period, of the Egyptian language. Mr. Mahaffy deduces from the review of his subject a large amount of information, and presents it in a form that must win adherents to his views. In his essay on "Cuneiform Inscriptions," Mr. Mahaffy is remarkably clear in his views, and throws somewhat of a new light on this enticing and abstruse subject. Celtic philologists, who have given attention to the study of deciphering the Ogham character on Irish monuments, or to be found in Irish MSS., will find some material for thought in this book. Members of the medical profession will find portions of the work interesting, for Egypt was at least a cradle, if not the cradle, of medical science, and we are given proofs

of it, and we have had already proofs in the works of Herodotus.

Egypt has had a literature thousands of years back in the early dawn of the world, but if we would unfold it aright we must interpret the legends and inscriptions upon her monuments, and dig deeper in her sands, and dive further under her waters for her hidden diamonds of historical and intellectual wealth. There are obelisks by the waters of the Nile, pyramids on her deserts, and mummies inclosed in her mausoleums and temples, that can unfold a volume of golden lore if they are approached by unbiassed minds, and interpreted by cultivated and diligent interpreters of history.

Mr. Mahaffy's work is the pioneer to new triumphs, and without subscribing to all his views, we have a right to give the honour that is due to him for his "Prologomena to the Ancient History," a work in every way creditable to his abilities, and reflecting honour upon the University and national societies of which he is a member.

IRISH PAPER-HANGINGS.

Of late years in Ireland the paper-staining trade, once prosperous, has gradually declined and become well nigh extinct. It is with great pleasure that we find this important branch of industry being revived among us, through the enterprise of Messrs. Wm. Fry and Co., 28 Bachelor's-walk, the present owners of one of the largest and best known paper-staining factories in Dublin, formerly belonging to Mr. James Boswell. We are glad to find that this firm has set out upon rules laid down by such authorities on mural decorations as Messrs. Ruskin, Owen Jones, Pugin, &c., in the production of their papers. The designs are original, and unlike those usually found amongst the paper-hangings of the present day, and in some of their new colourings, Messrs. Fry and Co. have been peculiarly happy. We particularly allude to some delicately-tinted rich satin papers, in which the various designs are produced in the flat, without any attempt at relief—one of the prevalent faults of some of the best English and French paper-stainers. Leaving this class of design, we find among Messrs. Fry's new productions in hall and staircase papers a clever imitation of ashlar painted walls, which the most experienced eye cannot distinguish from this favorite mode of painting. This can be hung, completely finished, at about one-half the cost of doing the same work in oil paint, and will, we believe, be found quite as durable.

Although this style of imitative decoration has been objected to theoretically by some great Art-critics, yet we venture to predict a very general adoption of this class of paper, which will be found in most cases an improvement on the marble paper generally used on staircases. Every objection which critics could urge against ashlar papers, can, with equal force, be used against marble papers, while the former will be found a much better imitation of what they are intended to represent than almost any marble papers of the present day. The goods are all manufactured on the premises. We are glad to find that the question of price will not interfere with the sale of Messrs. Fry's productions, the various prices being such as will compare favourably with French and English goods of equal quality. *

[It may also be mentioned, to the credit of Messrs. Fry's establishment, to Irish art, and the country, that some of the best designers, both in their poplins and room-papers, have been pupils of the Art School of the Royal Dublin Society. We may shortly devote an

article to a review of the history of the Irish paper trade and all its branches and applications to domestic and other uses. Suffice for the present that it gives extreme satisfaction to the conductors of the IRISH BUILDER to chronicle the progress of a native enterprise entitled to every support, not on national grounds alone, but on the utilitarian grounds of the ornamental, the useful, and the durable combined.—ED. I. B.]

SANITARY MATTERS IN THE CITY AND PROVINCES.

It is hardly necessary to inform the British world, that the streets of Dublin are thick with dirt—everybody knows it by this time. Our well-paid scavengers, who starve on one meal a day, and hide their shabbiness on Sundays, have struck for an advance of 1s. per day. Our model Corporation allowed the poor fellows 12s. a week, hardly enough to keep body and soul together; but no sum has been considered too much in times past, to vote for liquidating the expenses of useless and mischievous deputations to London, where they got laughed at. Small-pox is very prevalent still in Dublin, and extra hospital accommodation is required. The Corporation and the Gas Company are going to law, and the lawyers will be growing fat on the public money, flung away for helping some needy relative. Poor wheedled and cajoled rate-payers of Dublin! Petitions from different districts of the city have been presented praying for asphalt pavements.

In Belfast it is agreed that in future the footpaths of all new streets shall be flagged or formed of such suitable materials, not pebbles or pavement, as shall be approved of by the Improvement Committee. Mr. Dinnen gave notice that at the next meeting of the council he would move that, owing to the inferior quality of the gas supplied, the council shall take such means as they may deem expedient to procure a cheaper article and better supply; and also that it be an instruction to the officials of the Corporation not to take any active part prior to or at any municipal or Parliamentary election beyond recording their votes.

Some slight efforts are being made in some of the provincial towns, but as yet, saving works that have already been ordered, there is no news of any large works of a sanitary nature. We trust that with the opening of the spring indications of renewed improvement will be visible.

CORRESPONDENCE.

THE ROYAL COLLEGE OF SCIENCE, IRELAND.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I have been long intending to drop a few words by way of inquiry to the IRISH BUILDER, and of eliciting information respecting the Royal College of Science for Ireland. What is this institution doing, and where can any evidence of its results be obtained? The pupils are, I hear, very few, and the professors too many, and, as some say, too well paid. I have not time on this occasion, but possibly in your next I will ask of you the liberty of putting a few plain questions to the directorate of the institution. I have been a diligent inquirer for several months, but I have failed to obtain any satisfactory account of work done on the part of the institution calling itself the "Royal College of Science for Ireland."—Yours,

R. MOLESWORTH SMITH.

Rathmines, January 12, 1872.

[On another column our correspondent will find something respecting the lectures at the Royal College of Science now being delivered by Prof. Ball, and which are well attended. We shall be happy to print any "plain questions" put to the directorate of the Royal College of Science by our valued correspondent.—ED. I. B.]

NOTES ON THE ECCLESIASTICAL ARCHITECTURE OF IRELAND.

BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A. SCOT.

(Continued from page 5.)

THE period of the introduction of lime-cements into Ireland is unknown; Dr. Petrie assumes it to be during St. Patrick's mission, but without authority. The use of cements is as old as the building of Babel, and was known to the old Pelagic builders, though but occasionally adopted. Edward Dodwell, describing the fortifications of Delphi, in Phocis, writes, "that the high antiquity of the walls is not to be disproved by the use of mortar in their construction." He further states, that the walls of the Acropolis of Pharsalia and other places, where they are of an unusual thickness, are lined on both sides with large blocks, while the interstices are filled up with smaller stones, and earth or mortar; also, that the walls of Methana are constructed with a hard mass of small stones, mortar, tiles, and earth, between casings of regular masonry. The Romans used cements a thousand years B.C., and carried their use into all their colonies, including Britain, which latter was covered with their towns and villages. The Gaedhili in these remote ages had constant intercourse not only with Britain, but also with France and Spain, and that of a peaceable and commercial character. Tacitus, the Roman historian, states that in his day the ports and harbours of Ireland were better known to Continental merchants than those of Britain. Under such circumstances they could not have been ignorant of the use of lime-cements, and it is ridiculous to associate their use or introduction with Christianity. Ireland abounds with surface limestone and deposits of marine shells, from which that article can be made; so much so, that the English governor of Derry, when building the fort of Culmore, wrote to the Lord Deputy, stating, that he had found such a deposit of oyster-shells in the locality as would be sufficient to provide lime for the work.

This article was, no doubt, but sparingly used, being in all probability scarce and expensive. We could not, therefore, expect to find it in our great stone forts and military works, or in the underground chambers of the innumerable raths scattered over the face of the country. The old Gaedhelic masons had everywhere an abundant supply of stone; and that they did not spare it in construction, the thickness of the walls of their fortresses and stone-roofed dwellings will testify. It is quite true that the earliest Christian edifices now existing among us are built in mortar, though some of these also are uncemented; but we have no right to assume that, previous to these, no buildings were constructed by the Pagan Gaedhili bonded with mortar, because such do not now exist. If they had been secular buildings, they would in all probability have gone to ruin; if religious, the Christian converts would in all probability destroy them. Very few Christian buildings of an early date are standing, and these owe their existence to the extraordinary veneration with which they were regarded, and the anxious solicitude shewn for their preservation. Whether the early Gaedhelic masons were skilled in the use of cements or not, they were certainly skilled in a more difficult art—the preparation and fitting of stone,—as I have already shewn. The converts to Christianity had, therefore, no difficulty in finding skilled labour for the erection of their oratories, and the humble churches which for several centuries contented them. These I shall now proceed to describe.

It may be expected that I should here refer to that important class of structures—the Round Tower; but as the question of their age and uses is a vexed one, and of too broad and extended a character to be discussed within the limits I have prescribed for the subject under consideration, I shall for the present not enter on it, more particularly as I don't believe in their ecclesiastical character.

The primitive ecclesiastical buildings of

Ireland appear to have been of two classes—the *duirtheach* and the *daimhliag*, literally "the oak house" and "the stone house," or "the oratory" and "the church." It cannot be denied that, though stone was the prevailing material for religious edifices in the primitive Irish church, they were also occasionally constructed of wood, in localities where stone was scarce or difficult to quarry. This has been clearly shewn by Dr. Petrie, at pp. 341-3 of his valuable work. He, however, seems to think that stone was used for the churches (*daimhliag*), and oak for the oratories (*duirtheach*). In the present limited state of our knowledge, we cannot draw so hard and fast a line. It is probable some of the churches were also of wood, and we know from existing examples that many of the oratories were of stone.

As none of these oak-churches are now in existence, we are not in a position to speculate on their size or construction. Dr. Petrie seems to think that some of them were of considerable dimensions, and gives some quotations to that effect from ancient MSS. These are not, however, of that nature which will satisfy the architectural critic.

ORATORIES.

These, from their diminutive size and peculiarities of construction, appear to me to have been the earliest religious buildings erected in Ireland. They are numerous in the south and west, and a few of them are to be found in the central counties. With a few exceptions, they are constructed of cemented masonry, varied in character. In some instances the stones are squared and neatly fitted, as at Leabba Molagga, County Cork; in others the work is of polygonal character, the stones large, dressed to the natural shapes, and fitted with few spawls; in others the work is of an inferior class of rubble, the stones large, rough-dressed, and spawls used. Their builders always affected large-sized materials; in many cases the stones are inlocked one to another, as in some of the stone forts and round towers. The interior of the walls is usually filled with small stones and lime-grout of exceeding hardness; in many instances there are no thorough bonds, the builders appearing to depend on the thickness of the walls and the soundness of their mortar, the existing examples of which fully justify their trust. As a rule, the masonry of the oratories and primitive churches is of a very superior class, far exceeding that of the churches and monasteries of the thirteenth and succeeding centuries.

Dimensions.—The size of these buildings varies: St. Molagga's (see plan) is 10 ft. by 7 ft. 2 in., clear of walls, which are 2 ft. 9 in. thick; St. Declan's, at Ardmore, is 13 ft. 8 in. by 8 ft. 4 in., clear of walls, which are 2 ft. 6 in. thick. The oratory of St. Molua, Killaloe, is 10 ft. 6 in. by 6 ft. 4 in., clear of walls, which are 3 ft. in thickness; St. MacDara's, on the island of Cruach Míodara, off the coast of Galway, measures 15 ft. by 11 ft., clear of walls, which are 2 ft. 8 in. thick; St. Columb's, at Kells—a different type of building,—is 16 ft. 1 in. by 13 ft., clear of walls, which are 3 ft. 10 in. thick; St. Kevin's, at Glendalough—an oratory of a similar type,—is 22 ft. 7 in. by 14 ft. 10 in., clear of walls, which are 3 ft. 7 in. thick. Other examples vary between these dimensions.

Plan.—The oratory is of two distinct types—those with and without over-crofts or upper chambers. All are rectangular on plan, and most of them have a curious feature—namely, the prolongation of the side walls beyond either gable, to the extent of from 18 in. to 2 ft. This extension is sometimes the full thickness of the wall, on the face, sometimes less, and is also carried up the gables on a line with the stone roof. The masonry of these *antæ* is generally of a very superior class, the stones being neatly squared and fitted, no matter what the finish of the walling may be. The doorway is usually in the west, and, when otherwise, it will be found to be a later insertion, as at St. Columb's, Kells, and St. Declan's, Ardmore. These doors are a

very remarkable feature; they are built of massive blocks, usually the full thickness of the wall, the jambs inclining inwards towards the top, and covered by a flat massive slab, as a lintel, also generally in one stone; in some cases the entire doorway is formed of three stones, as at St. Molagga's.

We find but one window ope in these structures, and that invariably in the east gable, and of very small dimensions. It is either angular or semicircular-headed, the latter being the more prevalent form. In all cases the jambs incline as in the door-opes. Inwardly they have wide splays, both on jambs and arches, the sills being also splayed, and sometimes stepped, as in the example at Friar's Island (see plate). The roof-coverings appear to have been of stone: certainly, we have several examples of such stone-constructed coverings existing to this day, while the ground plans and masonic construction of numerous others indicate a similar treatment, though these features no longer exist. In their execution we find two modes of forming the roof—the first and simplest are high-pitched, never less than an equilateral triangle in section, often steeper; they are also triangular on the soffits, the internal and external lines being parallel. They possess no principle of the arch, being built of rectangular slabs in overlaid courses of from 4 in. to 9 in. in height, and from 12 in. to 3 ft. in length, dressed both inside and outside to the rake of the roof, laid, breaking joint, and at such an angle as to throw off the water, the top being covered by a solid angular capping stone. These roofs are constructed with undoubted forethought and skill; several which I have examined, after the lapse of 1,000 or 1,200 years, are still staunch and sound. This was the mode of construction used in St. Molua's oratory, Friar's Island, and in St. MacDara's, County Galway.

Friar's Island lies in the Shannon, about three-fourths of a mile below Killaloe, towards the Tipperary side of the river. It is a long low deposit of sand, gravel, and boulders, with a light sprinkling of soil, the only vegetation being grass, weeds, and a few alder trees. About the centre of the islet is a small church, consisting of a ruined nave and a nearly perfect chancel, the latter being the original oratory of St. Molua. Its dimensions are 10 ft. 6 in. by 6 ft. 4 in., clear of walls, which are 3 ft. thick on the flanks, the gables being 3 ft. 4 in. It was lighted by a semicircular-headed ope, 1 ft. 6 in. high by 9½ in. wide externally, having large inward splays (see drawing), the head being cut out of a single stone. The original doorway was in the west gable; but when the nave was added, the door-ope was cut away and enlarged, and an ope to the chancel constructed, 5 ft. 9 in. wide: the alteration is quite palpable. A rude door-ope was also cut through the south wall of the oratory. Its most remarkable feature, however, is the stone roof, which is constructed of rectangular slabs of various thicknesses, laid in courses, each overlapping the preceding one, and dressed both inside and outside to the rake of the roof, which has the same angle both internally and externally. Under the ridge is a rectangular air-chamber, 2 ft. by 1 ft. 3 in., having an external vent, and communicating internally by a square ope in ceiling of 1 ft. 3 in., and close to the west gable. This chamber was evidently for ventilation; it also lightened the dead weight in the apex of roof. This curious little structure appears to have been originally built with great solidity and care. The masonry was of large-sized rubble, dressed and accurately fitted; it has, however, been much injured and dilapidated by the growth of trees and ivy through the joints both of walls and roof. It is, however, in wonderful preservation, considering the usage it has undergone. The nave, which had been added at some remote period, was itself a building of great antiquity; it was 21 ft. 5 in. by 12 ft. 7 in., clear of walls, of which only about 3 ft. in height remain standing. The west gable fell about twelve years before my visit. A drawing in "Grose's Antiquities" shews the

doorway to have been a massive square-headed ope, with converging jambs. St. Lua, in the early part of the sixth century, built a cell in this place, hence it was named Cill-da-Lua, the cell of Lua, from which Killaloe. We have every reason to believe that the oratory on Friar's Island was this identical cell. In our hagiology the name is Molua, the eudearing term Mo being prefixed to the names of many of the saints of our primitive church. It is worthy of remark that this little oratory, though subjected to violent alteration and dilapidation from neglect and want of repair, still stands, and by judicious care may stand another 500 years, while the more recently built nave has all but disappeared.

The stone roof of St. MacDara's church is much damaged; enough of it, however, remained, in Dr. Petrie's time, to shew that its construction was similar to that of the building I have been describing.

There is no district in these islands supplies us with so many and remarkable examples of early masonry as the County Kerry, reaching far back into the Pagan age. That her primitive ecclesiastical architecture should be strongly influenced by the pre-existing Pagan forms, is reasonable to suppose, and so we find it.

The oratory at Gallerus, in that county, is perhaps the most curious little building in our island. Its dimensions are 15 ft. by 8 ft., clear of walls, which are 4 ft. thick at ground level. The gables are perpendicular, but the side walls batter inwards from the ground to the ridge in a curved form, making the section of the building a pointed arch, the stones being dressed and laid with remarkable care, the entire being stanch and water-tight; the height 16 ft., or nearly so, to the ridge. The doorway is, as usual, in the west end, flat-headed, with inclining jambs; it is 5 ft. 7 in. high, 2 ft. 4 in. wide at base, and 1 ft. 10 in. wide at top. There is one small semi-circular-headed window-ope in east gable, the head cut out of two stones. The masonry is of flat green-stone rubble, carefully built, the door dressings and quoins being neatly wrought. There is no appearance of mortar in the walling. The great antiquity of this structure is undeniable. Dr. Petrie was so impressed with it, that he admits, with the historian of Kerry, that it "may possibly challenge the Round Towers as to point of antiquity."—p. 131. The masons who designed and built this structure—in the section adopted, the material selected, and the character of the workmanship—shewed an amount of practical knowledge, skill, and experience that must have been the result of long and extensive practice. With ordinary care and a few trifling repairs, this little structure may last another 1,000 years for aught that it has worn in the past. Surely these old Gaedhelic stone-masons built for all time.

But a still more curious, and probably a more ancient, oratory exists near the old church of Kilmalkedar, in the same locality. It has been described by the late Mr. DuNoyer in the *Jour. Kil. Arch. Soc.*, v. 1864-5, p. 29. Its internal dimensions are 17 ft. 2 in. by 8 ft. 6 in. at ground level; the walls are of unequal thicknesses, the side ones being 3 ft., the west gable 4 ft. 6 in., the east gable 2 ft. The section shews externally the form of a pointed arch, as at Gallerus, but internally that of an oggee one, while the gables have the same batter as the side walls. It is also built of uncemented masonry, the stones being flat and close-jointed. The door ope is in the west end, of the usual form, and there is a narrow rectangular loop in the east, which is splayed inside and outside.

There is no doubt that the domestic edifices of the ancient Irish were generally of wood. We have plenty of evidence of this in old historic tales, found in various MSS. of great antiquity; but we have also abundant evidence in existing remains that they also constructed their habitations or storehouses of stone. They have been usually named *clochans* by antiquaries, or rather the term has been adopted from the peasantry. These buildings are to be found in the west of the County

Cork, all through Kerry, particularly on the coasts and in the islands; they are also found on the coasts of Clare, Galway, and Mayo, principally in the islands. They are generally circular on plan, from 10 ft. to 20 ft. in diameter, in clear of walls, which are from 4 ft. to 8 ft. in thickness at ground level; their section is somewhat of the bee-hive form, the stones being laid overlapping one another, and the wall diminishing in thickness to the top; the doorway is of the type I have been already describing, with inclined jambs, and flat-headed, window ope being unusual.

Though I have described the prevailing type, there are several varieties of these structures; some are circular on plan both inside and outside, some oval, others approach the form of the human eye, and others again form a quadrant or quarter of a circle; we have also some examples which are circular or oval externally, while internally they are square or rectangular. Thus on Arranmore Island, at the entrance of the bay of Galway, we find one known to the Arraners as the *clochan-na-carraige*, i.e., the stone house of the rock. It is circular outside and rectangular inside; its dimensions, as taken by Dr. Petrie, being 19 ft. long, 7 ft. 6 in. wide, and 8 ft. in height. A similar and characteristic example is to be seen on Church Island, in Lough Currane, in the south-west of Kerry. Externally it is an irregular circle whose diameters are 31 ft. and 29 ft.; internally it is a rectangle of 16½ ft. by 15 ft., the walling being from 6 ft. to 7 ft. at the ground line. The masonry is of cyclopean character, being formed of large blocks laid without cement. The doorway is but 4 ft. 3 in. high, 3 ft. wide at sill, and 2 ft. 9 in. at head; it is covered by three large slabs. The peasantry have named it "the house of St. Finan Cain," a saint who flourished in the sixth century. This appropriation is, however, very problematical, as there is neither window-ope nor vent for smoke in it. I can scarcely imagine that an educated saint of our primitive church would take up his abode in so comfortless a dwelling. I believe this and kindred structures to be older than even the remote age of the saint named. The Barony of Corcaquiney, in Kerry, contains numbers of *clochans*; in many instances groups of from two to six are to be found enclosed within fortifications of massive masonry; and at Fahan, near Dingle, there is quite a town of them, deserted ages ago, beyond even tradition. Such groups are also to be found in the islands off the coast of Connaught.

My object in thus describing these buildings is to shew the source from whence the early Irish church had the simple and massive architecture of her religious buildings. The *clochan* was evidently the original type, and the curve-sectioned structures at Gallerus the transition stage to the rectangular and vertical walled oratory.

NOTES ON OUR EARLY POSTS AND POSTMASTERS.

AMONG all our public establishments there is not one perhaps that embraces such a remarkable history in its rise and development as the postal system. The investigation in all its details would form a volume of portly dimensions, containing much that would, no doubt, be dry, but unfolding at the same time some of the most marvellous and entertaining chapters in our modern national history. We purpose only in our sketch to present some of the early phases of our postal system, from its first dawn down to the great reform inaugurated by the labours of Rowland Hill upwards of thirty years ago. Ireland played a more conspicuous part in relation to the establishment of posts, and the means adopted to secure a safe and reliable intercommunication with England and the Continent, than many are aware. During the wars of Elizabeth and Cromwell, when the O'Neils and O'Donnells, and other native chieftains, kept the English Pale and the English Parliament busy in devising methods of defence and con-

quest, it became absolutely necessary for the Parliament to be kept duly apprised of all hostile movements on the part of the Irish people, and means were consequently adopted for securing "News from Ireland." Before entering at length upon these periods of our history, we will take a brief glance backward to an earlier date, to when a postal system of a tedious and uncertain kind existed.

As early as the reign of Edward III. a sort of post establishment existed, but it did not partake of a public character. In Edward IV.'s reign, however, that monarch established post-houses at intervals of twenty miles; and we find that in the North and beyond the Tweed a military post was formed to enable the Government to communicate with the army during the Scottish war. There is a great paucity of information concerning the postal system existing about this time, and we are not afforded any definite data to show how far the public at that time availed themselves even of the little facilities that existed for the transmission of their correspondence. The means for a long period subsequent to Edward's postal establishment was very limited for letter-sending, save by private and expensive methods, that could only be resorted to by the rich. Previous to the reign of Charles I., merchants, professional men, tradesmen, and others, had to resort to the employment of messengers, couriers, and ordinary carriers, some times at great cost and delay. Some of the chief cities and large universities had special couriers or messengers, who rode on horseback, delivering the letters and returning with the answers. Their mission was often fraught with peril, for freebooters or highwaymen were on the alert, and the couriers did not always return to their starting posts. In the middle of the 16th century, for a short interval, a post existed between London and Edinburgh, and letters were exchanged, the journey occupying four days each way. Camden, the historian, mentions one Thomas Randolph, who, in 1581, appeared to be the chief postmaster in England. Under James I.'s reign Mathew Le Quester was deputed to see after the transmission of foreign letters; but this system seems to have been a circumscribed affair. By a proclamation in the reign of the first Charles letters were forbidden to be sent out of the kingdom except through the medium of the post-office. Private speculators and foreign-bound ships were in the habit, previous and long subsequent to this, of conveying a moderate share of correspondence. About 1635 Charles established a system of posts for England and Scotland which appears to have been hedged around with careful restrictions. We do not find that Ireland was included in the benefits of this postal monopoly. Then followed the abolition of local and private posts, the Crown claiming the future exclusive privilege of transmitting correspondence for the general public. The income, too, reverted to the government for the king. The new postal system was placed under the control of Thomas Wytherings. We may also mention, about this time, Charles, in alliance with Louis XIII., established an international postal system between London and Paris. A private post some time previous to this existed between Rye and Dieppe. The breaking out of the civil wars had the effect of disarranging all postal communication for a time, but after a while the Commonwealth took active and judicious steps for securing a ready correspondence with Ireland and Scotland, as we will hereafter show.

Respecting the small extent of the postal facilities existing in Ireland during Elizabeth's reign, when the Earl of Essex was Lord Lieutenant, the following extract from a letter, written by Sir John Harrington, dated from Trim, in the county Meath, 1598, will show:—

"Good Thomas, I have received sundry letters from you, and namely the last, dated August 24th, which came not to my hands till the 30 of September, whereby it seems the messengers made slow speed, and who it was I know not, and therefore as I have directed others, so I wish you to name in

your letters, if you may, by whom you send them, that they may receive thanks or blame according to their care and speed."

The letter from which the foregoing extract is given is a most interesting one, and gives some minute particulars of the Earl of Essex's expeditions against the Irish chiefs and their forces in Munster and other parts of Ireland. Sir John Harrington was in the service of the Earl of Essex during those forays, and received his title for his services; he was also a man of letters, having translated Ariosto. We cannot forbear digressing from our subject in giving another extract from his letter in relation to his work. Writing to his correspondent and friend, Mr. Combe, he says:—

"My Ariosto has been entertained into Galloway [Galway] before I came! When I got thither a great Lady, a young Lady, a fair Lady read herself asleep, nay dead [dead asleep, we suppose], with a tale of it. The verse I think so lively figured her fortune; for, as Olympia was forsaken by the ungrateful Byreno, so had this lady been left by her unkind Sir Calisthenes, whose hard dealing with her cannot be excused, no, not by Demosthenes."

We fear that Sir John Harrington was more of a gallant than a soldier while in Ireland, and that he captivated more ladies' hearts than he captured Irish kernes.

Oliver Cromwell, in 1654, issued a remarkable Ordinance touching the Office and Postage of Letters in Ireland. A copy of this Ordinance is before us as we write. This historical document seems to have been greatly overlooked by those who have previously treated of the subject of the postal system. As it is a most interesting piece of our postal history we will give an abstract of it, hoping that the information it affords will excuse its length:—

"Whereas upon the one and twentieth of March, one thousand six hundred and forty and nine, it was resolved by the then Parliament, that the office of postmaster, inland and foreign, were and ought to be in the sole power of the Parliament; and several orders were made by the said Parliament, whereby the arrangement thereof was referred to the Council of State; and whereas on the thirtieth day of June, one thousand six hundred fifty and three, the then Council of State did, by special contract, demise and set to farm the said offices for the postage of letters, both foreign and inland, unto John Manly, of London, Esq., at and under certain rents, covenants, and conditions, for the benefit and advantage of the Commonwealth.

"Be it ordained by his Highness the Lord Protector, with the consent of his Council, and it is declared and ordained by the authority aforesaid, that he, the said John Manly, his heirs and assigns, from the said thirtieth day of June, one thousand six hundred fifty and three, until the thirtieth day of July, which shall be in the year of our Lord one thousand six hundred fifty and five, shall and may for and under the rents, conditions, clauses, provisions, and agreements hereafter in this ordinance set down and mentioned, have, hold, execute, and enjoy the said office of postage of letters, both inland and foreign, together with all the powers, perquisites, and profits to the same of right appertaining, and hereinafter expressed; and shall and may, by himself, and such faithful, able, and well-affected deputies and under officers (for which he shall stand and be responsible), take and receive such perquisites and profits only, and no more, as are herein hereafter particularly mentioned, allowed, and expressed, in manner and form as hereafter ensue.

"The said John Manly shall have the sole care and charge of the postage and carriage of all letters and packets, both foreign and inland, to and from all persons, and in all places of England, Scotland, and Ireland, and to and from all other places within the dominions of this Commonwealth, exclusive to all others; except for such as shall be sent either by common or known carriers, along with their carts, waggons, or pack horses, or by messenger or messengers on purpose, or by some servant, or friend or friends, or by some ship or ships, vessel or vessels, not being packet-boats, nor vessels or boats purposely or principally employed to carry letters; and which said packet-boats, and other vessels and boats to carry letters (except only such as shall be employed by the said John Manly), together with all other posts (but such as shall likewise be therunto authorised and empowered by him) are hereby expressly prohibited, forbid, and suppressed.

"The said John Manly, by himself and his said

deputies, agents, and under officers, shall, from time to time, and at all times during the continuance of this ordinance, safely and faithfully carry all ordinary and extraordinary letters and dispatches to and from his Highness, and to and from his Council, or Secretary of State, or any of them; and to and from all members of the legislative power; and to and from the commissioners or committee of the admiralty or navy, generals of the fleet, general officers of the army, committee of the army, committee for Scotch and Irish affairs; and that by the common ordinary mail, or other speedy and safe passage, as the urgency of the occasion shall or may require.

"Whatsoever letters or packets which shall not come or be offered by some known publick seal or impress, to be for the publick, or some of the affairs above specified, shall, for the freeing them from publick postage, have an indorsement upon them in these words, or to this effect following, viz.:—'These are for the service of his Highness,' or 'for the service of the Commonwealth;' together with the names of such persons, or their secretaries, or clerks, who attend them or their services, respectively indorsed upon them.

"That for all other letters or packets to or from private persons, and for private occasions (and not at all relating to the persons and publick affairs mentioned in the former article, being absolutely free from pay and postage), he, the said John Manly, shall, by himself, or his agents, receive and take for the carriage and postage thereof, only according to the rate following, and no other or higher rates, viz.:—For every letter to or from any place within eighty miles distance from London, if a single letter, twopence; if a double letter, fourpence:—and for every letter at a farther distance than eighty miles, if a single letter, threepence; if a double letter, sixpence: and for every letter to or from Scotland, if a single letter, fourpence; if a double letter, eightpence:—and to or from Ireland, for every single letter, sixpence; and every double, twelpence:—and for treble, or greater packets of letters, proportionably.

"To the end a weekly intercourse may be continued between England and Ireland, the said John Manly shall (over and besides the packet-boats for foreign ports), and is hereby obliged to maintain one or more packet-boats, to pass and repass, if not hindered by wind and weather, weekly, between Milford and Waterford, and between Chester and Dublin, or to settle such other ways and means for a weekly correspondence between those places as may be equivalent for speed and security with the ways aforesaid.

"The said John Manly shall be, and is hereby obliged to maintain and keep one or more foreign packet-boats, to be weekly employed for the foreign ports, as hath been formerly used and accustomed.

"That, for the more speedy and effectual despatch of all the said posts and premises, the said John Manly shall be, and is hereby obliged to cause the said posts to run seven miles an hour in summer, viz., from the first day of April to the last of September, and five miles an hour in winter, viz., for the rest of the year.

"That the said John Manly shall be, and is hereby obliged to take order for, and cause every his under-postmaster or deputy, at his several stage, to have in readiness one good horse, or mare, to receive and carry the mail of letters from time to time; that the same may not be stayed above half a quarter of an hour at most; and, for the more speedy dispatch thereof, that no other person besides the post that carrieth the mail be suffered to ride post with the mail.

"That, for the reasons aforesaid, none but the postmasters deputed and approved of by the said John Manly, upon the several roads, shall horse any person post; and that the said postmasters upon the roads, deputed by the said John Manly, shall not receive or take from any person or persons riding post, as aforesaid, above the rate of three pence a mile for each post-horse, being the rates in such case formerly used and accustomed. And, to the end there may be a constant and sufficient provision at every stage for the horsing of such as shall have such warrant as aforesaid to take post-horses, the said John Manly shall be, and is hereby obliged to cause every postmaster deputed by him to keep usually and constantly at every stage the number of four good horses or mares, at the least, for the said post-service.

"That the said John Manly shall truly and faithfully pay unto such treasurer or receiver as his Highness the Lord Protector shall appoint, to the use of the Commonwealth, the sum of ten thousand pounds yearly, by quarterly payments, at and upon such days and times as he hath promised and secured the payments of the same.

"That no person or persons warranted to ride post shall ride above one stage upon the same post-horses, without consent of the owners of the said

horses, or the postmasters from whom he or they shall hire the same, to the wrong of such horses and prejudice of the posts; and if any shall attempt to do the contrary, the next magistrate, constable, or officer, upon complaint thereof made, shall stay the said offenders, and discharge them of the said horses, and likewise cause them to make reasonable satisfaction for the wrong therein done.

"Saturday, Sept. 2, 1654.

"Ordered by his Highness the Lord Protector, and his Council, that this ordinance be forthwith printed and published.

(Signed), "HENRY SCOBELL,
Clerk of the Counsel."

It will be seen that even in Oliver Cromwell's time the importance of a direct communication between the South-west of England and the South of Ireland was not lost sight of. The Government of the present hour ought to give their attention to the development of the postal system *via* Milford Haven as well as by Holyhead. This route ought to be availed of for the transmission of a certain quantity of the correspondence of England and Ireland, south of two drawn lines across both countries.

In 1656 there was still further arrangements and extension of the Irish postal system. In consequence of the horses of the military, who were then entrusted with postal communication, being "much wearied, and his Highness's affairs much prejudiced for want of a post-office to carry publique letters," one Evan Vaughan was instructed to arrange a postal system of communication, and he was also made a deputy-postmaster. There was a postmaster also appointed at Holyhead, to whom £100 a year was allowed for the maintenance of four boatmen, in addition to the packet-boats, at the rate of 8d. per diem, and a monthly wages of 18s. The postmaster stationed at Holyhead was a Major Swift. Further on, about the year 1670, post-houses were established in several of the chief towns of Ireland, and letters were transmitted twice a week for 12d. or under to the "remotest parts of Ireland. The "remotest" parts of Ireland, we may suppose, were the wilds of Connaught, particularly the wilds of Donegal and Kerry. Connaught, during the wars of Elizabeth and Cromwell, was looked upon as a sort of *ultima thule*, and the going there, or sending there of anybody or anything, was considered tantamount to sending to the regions of his most sable majesty. It is said we are indirectly indebted to Shane O'Neil for the first establishment of a post-office in Dublin, Queen Elizabeth being anxious to be duly informed of all her wily enemy's movements. High-street, Dublin, we believe, has the honour of being the place where the first Irish post-office was established.

We have said that the civil wars in England disturbed the postal system previously existing. A commission, however, when disturbances had abated, was appointed, and a fresh system formed, under Edmund Prideaux, a member of the English House of Commons. From this arose a regular weekly postal system, by which letters were conveyed to most parts of the kingdom. According to Blackstone, the public saving arising from the new system saved the English nation £7,000 per annum. The institution, too, became valuable, and it was readily leased by the Government at the yearly rental of £10,000. The improvements of 1654-6 we have detailed, and these improvements were confirmed in the first year of the Restoration, but afterwards repealed by an Act in the reign of Anne. A metropolitan penny post was established in England in 1683; and from the end of the first decade of the eighteenth century to the period of Rowland Hill's great reform of the postal system there were upwards of 150 Acts passed of changes and rechanges in the fruitful history of the postal system.

Returning to Ireland we find, except at some fitful intervals when military measures were being carried out in the government of the kingdom, the postal system was very inefficient down to a very late period. A penny postage system was not instituted in Ireland until about 1773, and then it was confined to

the city and four miles around. In 1784 a Dublin General Post Office was established. In 1799 the first mail stage coach started from Dublin to the provinces, and in 1816 the first steampacket sailed from our harbour to England. In 1818, the New General Post Office in Sackville-street was built. The Old General Post Office was situated previously in College-green, afterwards converted into the Royal Arcade. The latter favourite resort, lined with small shops on either side leading into Suffolk-street, was burned down in 1837. It is but right to add, that a public meeting was called by the then Lord Mayor, and subscriptions raised to relieve the sufferers, who were mostly small shopkeepers.

Before Rowland Hill's introduction of the penny stamp arrangement, the postal system of Great Britain was costly and inefficient. The outlay of the Government was enormously large, and the income surprisingly small considering the extent of the population. There were franking privileges enjoyed by members of Parliament and other officials, which tended to lessen the income; and the postal charges were so high, few but those who could well afford, or who were absolutely necessitated by business matters, availed themselves of the postal system. The average cost of letters in Great Britain was 6½d., and packet and ship letters cost 2s. A single sheet letter, sent fifteen miles or under, was 4d.; one from fifteen to twenty, 5d.; twenty to thirty, 6d.; thirty to fifty, 7d.; and so on in like proportions. Only real moonstruck lovers, with more silver than brains, disported in valentines; and the inditing or receiving of "an American letter" in an Irish tenant farmer's or peasant's cabin was a real event in the life of the family. "Paddy from Cork" buttoned his swallow-tail tight behind, and with a roguish twinkle in his eye, asked the unconscious but civil postman to "brake the sale" and "be after reading" the letter for him while he rummaged his inside pockets for the postage money. The money, we hear, was not forthcoming when friend Pat got all the information without touching the letter; and of course, under the circumstances, he repudiated the dirty bit of flimsy as of being no use to him. If these things ever occurred, all we know is, that the times are greatly changed, and the pauper as well as the peer can communicate with his friends, and on an equal footing.

Connected with the history of the postal system many anecdotes might be related, but as we have already exceeded our limits in this article, we must defer the telling of them until some other occasion. One amusing incident we will instance, however. Shortly after the introduction of the penny postage stamp a Quaker lady in Dublin entrusted a letter to her washerwoman, giving her a penny at the same time, and telling her to post the letter at the first letter-box on her way home. The washerwoman literally fulfilled her instructions, by dropping the letter and the penny both into the letter-box. Some delay having occurred in the delivery of the said letter, the lady inquired of the washerwoman, on her next visit, if she posted the letter properly and affixed the stamp. She received the following answer:—"Yes, ma'am, I'm quite certain I put the letter and the penny into the letter-box!" "Oh, thee simple woman," replied the Quakeress; "how was the postmaster to know to which letter the penny related?"

The following rare letter will illustrate the form of Parliamentary summons sent by the Speaker of the House of Commons to members of Parliament during the Commonwealth of England:—

"To James Challoner, Esq., Governor of the Isle of Man. From the Parliament; Wm. Lenthall, Speaker.

"Hast Hast, Post Hast.

"SIR,—The Parlyament of the Commonwealth being by God's blessing now again restored to the freedom and right of sitting where they were intercepted the 20th of April, in the year 1653, hath commanded mee to require your personal attendance forthwith, for the carrying on the great work ex-

pected from them in the settling and securing the peace and freedom of the Commonwealth, according to your duty in that behalfe.—Your loving Friend,

"Wm. LENTHALL, Speaker.

"Westminster, May 7th, 1659."

Parliamentary summonses to representatives to attend the opening of the session are somewhat different in these days.

We must conclude our notes of the early posts and belongings. The modern history, since 1840 to the present hour, is a marvelous development, embracing the reform of Sir Rowland Hill, and subsequent reforms, down to the wonderful transformation scene on improvement effected by Mr. Frank Ives Scudamore, one of the most active, if not the greatest, organisers of the modern postal system. The penny-postage, the money-order, the telegraphic message, the pneumatic tube, the halfpenny postal card, and other recent amalgamations, extensions, and improvements of the postal system, are too recent to need a recapitulation here. What we have written will, we hope, afford some insight into the rise and progress of one of the most wonderful institutions in the history of modern civilisation. In relation to Ireland we trust our retrospect will prove useful, as well as interesting; if so, our notes of our early posts and postmasters will not have been written in vain.

DUBLINIENSIS.

IMPROVEMENTS IN STEAM-ENGINES.

We publish elsewhere in our columns an abstract of a paper read before the Institution of Engineers and Shipbuilders in Scotland by Mr. J. W. M'Carter, of Londonderry, "On a Condenser for Steam-engines." Our contemporaries, the *Engineer* and *Engineering*, in their issues of the 22nd and 29th of last month, give illustrations of Mr. M'Carter's condenser now in use at the City Saw Mills, Londonderry. By the aid of these illustrations, or even without them, the ingenious arrangements and improvements introduced by Mr. M'Carter may at once be seen. The condensation of steam without the aid of an air-pump is an object of importance that cannot be over-estimated too much in these times. Some wonderful applications have been made during the last thirty years in the application of steam-power to a variety of purposes, some of the most remarkable being locomotion, and in relation to special trades or handicrafts. Watt, the parent of the steam-engine, not only gave us a working engine, but introduced some new improvements. The introduction of a separate condenser was one of these, for previously the steam was condensed in the cylinder, to which an air-pump was attached, the lifting of the air from the condenser keeping it clear, and preventing accumulation of water, which led to choking, the pump having to bear an atmospheric pressure on its whole area, in addition to the weight of the water. These arrangements were far from being perfect or pleasing; in fact, they involved much loss and trouble. In Mr. M'Carter's improvements the old arrangement of the air-pump is got rid of, the condensation being effected in the upper compartment of the condenser. The usual system is adopted by the injection of cold water, the maintenance of a steady vacuum, and the discharging of the products of condensation by a most simple contrivance. This is an ingenious arrangement of tappet gear and valves, the action being perfectly automatic in principle. The power of the engine is thus further utilised, and the wear and tear common to the old forms considerably lessened.

Mr. M'Carter's apparatus is patented, and

seems to have earned commendation in every quarter. There can be no doubt but it is destined to come into general use for land and marine engines. It would create a wonderful saving yearly in power, plant, and capital to manufacturers and the nation if it were generally adopted. It has been calculated approximately that by the adoption of the principle of Mr. M'Carter's condenser a saving in fuel to the extent of £10,000,000 annually would accrue. This alone is a serious consideration, and becoming more serious every day, for whether our coal-fields outlast for centuries or not, certain it is that the cost of fuel will not continue at its present rate. It is time we should husband our deposits, and adopt every means that lie in our power to save and economise our coal resources. The illustrations in the *Engineer* and *Engineering* are somewhat similar. To the engraving in the latter journal is annexed "an indicator diagram, taken from the low-pressure cylinder of the engine to which the condenser is fitted, the engine at the time running at forty revolutions per minute, and driving two saw-frames and one circular saw." The boiler-pressure was 30 lbs.

It gives us great pleasure to record such improvements; and we would advise the proprietors of our several city sawing, planing, and moulding mills to give Mr. M'Carter's establishment a visit, in Foyle-street, Londonderry, and we are sanguine that his improved condenser will soon replace those that they now have in use.

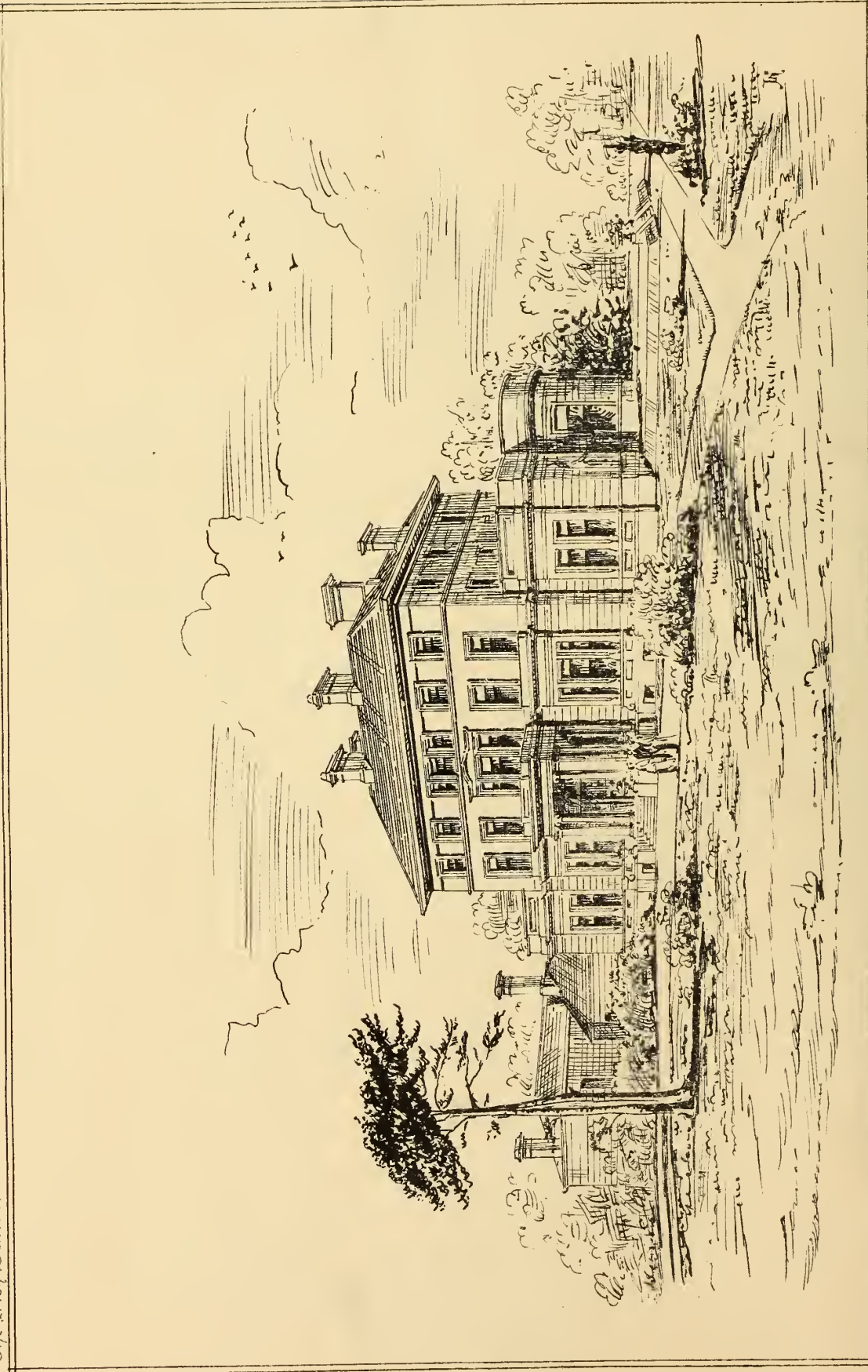
THE BATTLE OF THE STYLES.

Mr. George Edmund Street, the well-known Gothic architect, to whom is entrusted the work of restoration of Christ Church Cathedral in this city, is now engaged in a fierce controversy with several of his brother architects and critics. Mr. James Fergusson, F.R.I.B.A., having already severely criticised Mr. Street's design for the new Law Courts in London, in the pages of our contemporary the *Builder*, has returned to the subject with redoubled force in the pages of *Macmillan's Magazine* for this month. Mr. Street has just replied to his critics, the principal of whom are Mr. Fergusson, Mr. Sydney Smirke, Mr. Denison, and Mr. Edward Welby Pugin. Mr. Fergusson, after condemning the designs as unworthy of the architect or the object, accuses Mr. Street with being a copyist. It is rather stinging to be told that the Government awarded Mr. Street the premium for his design for the simple reason that it was the worst among the number submitted. "According to this Joshua of architects," says Mr. Fergusson, "the sun of art stood still when Edward III. died in 1377, and has not moved since that time." This sarcasm and irony mixed has, at all events, moved Mr. Street to some purpose.

Mr. Denison punningly says, that the architecture of the Law Courts' is Streetian architecture. Mr. Sydney Smirke would rather see the Law Courts designed in accordance with the Classic style; and Mr. Welby Pugin, who is a Goth to the back-bone, as his worthy father was before him, thinks that Mr. Street's design is either Gothic gone mad, or Gothic misunderstood and misapplied. Mr. Pugin, moreover, believes that our would-be Gothic architects of the last thirty years have learned nothing new, and have forgotten nothing of what was old or bad.

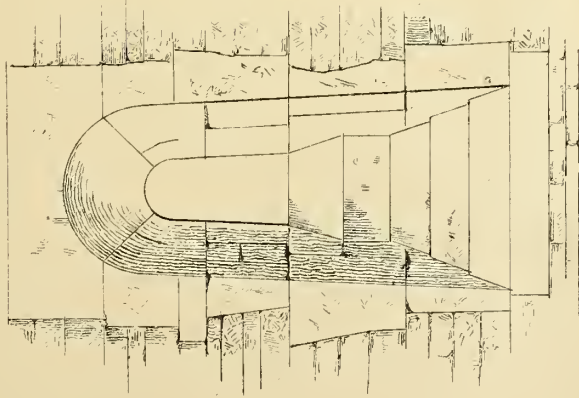
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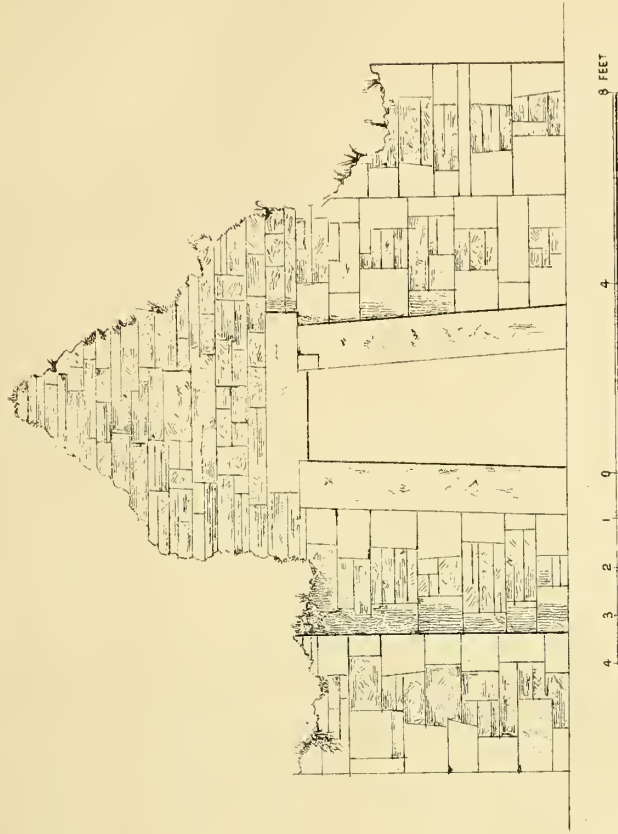
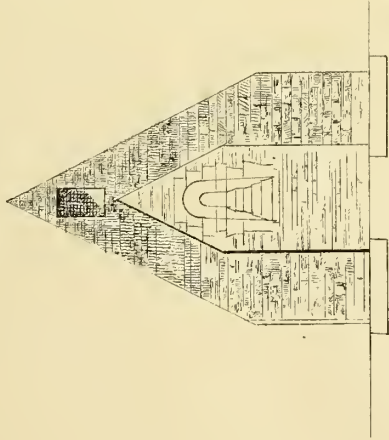


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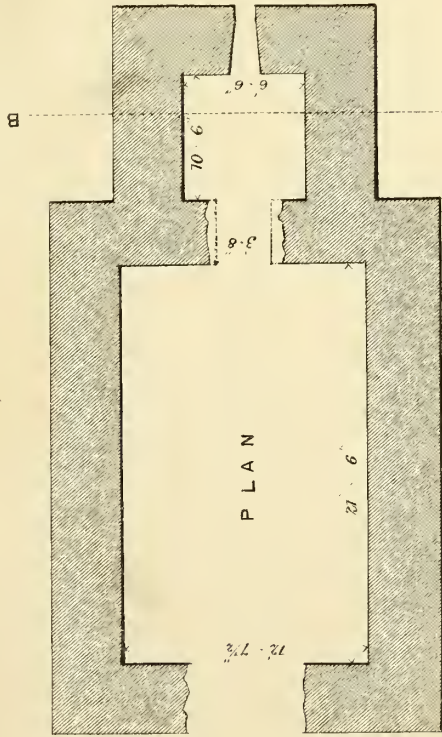
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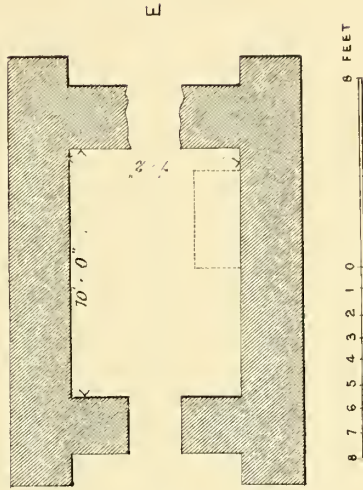


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there are many of our architects who have forgotten nothing, for the simple reason, if they forgot what they knew, they could not have designed in a style of which they knew next to nothing and would not deign to learn.

Mr. Street might have twitted Mr. Fergusson about the design of the new Post Office in St. Martin's-le-Grand; but Mr. Fergusson, we believe, has already repudiated the conception, though he admits he has touched up the designs or modified some of the details. Speaking fairly of Mr. Street's design for the new Law Courts, it is no injustice to say, that it does not meet all the requirements of such an edifice in the most pleasing or practical way. This defect does not arise from any deficiency of architectural talent or experience on the part of the architect. From the plans we have seen published, the front elevations are in no way prepossessing; and in the arrangements, entrances, passages, and the situation of several of the inner chambers, we think there is a large amount of space occupied, embodied in dead work, that ought to have been thrown into open space, giving, by its utilisation, more room to departments where it is much needed. In the matter of light, we are also puzzled to know how it is to be obtained for some quarters of the building, except on the borrowing principle. The question whether the Courts of Law ought to have been Gothic or Classic, is another matter, as well as whether Mr. Barry's instead of Mr. Street's design should have been selected. We have no leaning to persons in this particular, nor ought others be biased. The best design in all its details, and the one more in accordance with the tastes of the age and the requirements needed, is the one that should have been selected. Mr. Street has not been fortunate in his luck, rather his luck will be more unfortunate to others than to himself. To speak candidly, we would rather that Mr. Street was more successful in this design, because he has given the world proofs already that he can design well. We have nothing to say to the *animus* of *Macmillan*, the *Times*, or the *Builder*, nor do we believe there is any real hostile feeling existing against Mr. Street. The opinion, however, of the non-professional portion does not amount to much, save where the inspiration is known to come from a competent party. Mr. Street cites the *Athenaeum*, the *Building News*, and the *Architect* as authorities who have spoken flatteringly of his work; but the dictum of either of these journals is no greater than their contemporaries. The attributing of an *animus* to men or journals because they honestly differ, is not a safe procedure; an *animus* can be attributed with as much effect and more on one side as the other.

Mr. Street's pamphlet is a vigorous reply to his critics; but in the brushing away of a few cobwebs that may have existed, the design remains intact, without any injury or without any further improvement. We regret this for many reasons, for the greatest amongst us should not be above kindly advice, nor too old to learn to labour and to wait.

ART IN LIVERPOOL.

THE town of Liverpool exceeds in population many of the continental capitals, but it is a peculiarly all-engrossing business town. The Report of the Fine-Arts Committee on the Autumn Exhibition (1871) of Pictures at Liverpool shows that very great exertions

will be absolutely necessary to support the credit of Liverpool, and render her exhibitions worthy of the town. The statistics of last year, showing the results of the autumn display, will explain what we allude to. The exhibition was open from Monday, September 4, to Saturday, November 18, during the day, at the charge of 1s. for each person; and from 16th October to 18th November, during the evening, at a charge of 6d. The number of admissions by payments at the door amounted to 14,416 in the morning, and 8,309 in the evening, making a total of 22,725, besides 313 season tickets, and about 6,000 pupils of educational establishments of all classes and denominations admitted gratuitously. The number of works exhibited consisted of 430 oil-colours, 450 water-colours, 18 pieces of sculpture, 10 other works of art, forming a total of 908. Of these 832 were for sale, and 235 were actually sold for sums amounting to £6,395 2s. 6d., of which pictures to the extent of £1,337 were purchased by members of the Town Council, exclusive of £500 expended by the Corporation in pictures for the permanent Gallery of Art now in the course of formation. The total receipts amounted to £1,481 9s. 8d., leaving a profit of £600 6s. 8d. The committee takes notice of an idea existing outside doors, to the effect that artists were too much in the habit of sending to the provinces pictures and drawings which had proved unacceptable in London. This impression, it is said, interferes with or injures the sale of pictures in provincial exhibitions. The committee point with satisfaction to the large number of pictures painted specially for the exhibition, and the large proportion sold to purchasers who never previously bought pictures at all. Some purchased were high-priced works, but the majority were at low prices. Collectors of pictures do not commence, however, by purchasing pictures of great value. They creep, little by little, from the smaller price to the larger. Liverpool will doubtless improve in her fine-art exhibitions, if due care and energy is shown by the committees that may be formed, and the portion of the public that are always interested in matters of fine art and its creditable sustenance.

THE DRAINAGE OF THE THAMES VALLEY AND THE LIFFEY.

Mr. Bazalgette, of whom the Dublin people will have a long memory for his wonderful and bewildering engineering scheme connected with the main drainage of Dublin, proposes now to collect the sewage of London, beginning at Hammersmith, and take it against the fall of the river Thames, to an area within three miles of the other side of Chertsey. On that he will deposit the whole of the sewage of the present 300,000 people, rapidly increasing to 600,000. Out of the 300,000, the sewage of not more, perhaps, than one-twelfth part finds its way into the Thames beyond the intake of the water supply. One of the members of the London Corporation contends that it would not be wise or desirable to accumulate a large cesspool near the well that supplies the water-works with water, especially as the river or stream known as the Bourne Brook flows through the centre of the land proposed to be irrigated with the sewage, while it empties itself into the Thames three miles beyond the intake of the water supply of London. This view of the matter was referred to the Sanitary Committee of the London Corporation. Now, the Londoners are alive to their own interests, and they will take care that, though the sewage may and should be utilised, the waters of the Thames shall not be polluted.

Turning to Dublin, we see that Mr. Bazalgette's monstrous scheme, which is about being carried out by our unpractical Corporation, involves us in debt, and finishes with a plan tantamount to that of keeping out the tide with a pitchfork. The sewage is to be intercepted, for the fun of the thing, and cast into our bay, to be washed back again

for the fun of the thing—to be dredged up again at the mouth of our harbour, for the further fun of the thing; and when it has at last been washed useless, and denuded of its fertilizing qualities, this sewage, for the fun of the thing, will be shot down into some swamp or waste lands on the borders of our city. For the perpetuation of all this ghastly fun the city is to be taxed for several years prospectively; and, to culminate the extravaganza, somebody very active in those matters will be knighted, the churchyards of the metropolis growing fat in the interim by virtue of the healing effects of the Main Drainage Scheme! Oh, Bazalgette, "what's in a name?"

CAHERCONLISH HOUSE, COUNTY LIMERICK.

WE give this week an illustration of Caherconlish House, county Limerick, the property of Mrs. Gabbett, which has recently undergone extensive alterations and additions, from the designs of Mr. W. Fogerty, architect, formerly of Dublin, and now of Buckingham-street, Strand, London. The old house was a plain cubical block, three storeys in height over the ground, with a basement. The wings and portico shown in the view have been added, and a new roof with bold eaves, also new window-dressings, so as to give some degree of architectural character. The house is situated in the middle of a noble demesne with some splendid timber and charming scenery. The work has been carried out very satisfactorily by Mr. James Cavanagh, of Limerick, at a cost of about £4,000.

BOOKS RECEIVED.

Rudimentary Magnetism, &c.; General Principles of Magnetic Science, and the Purposes to which it has been Applied. By Sir William Snow Harris, F.R.S., &c. Revised and Enlarged. By Henry M. Noad, Ph.D., F.R.S., Vice-president of the Chemical Society, &c. London: Lockwood and Co., Stationers' Hall Court. 1872.

SOME twenty years since and upwards Sir William Snow Harris gave to the public a valuable treatise on the above interesting subjects, and though modestly designated rudimentary, it went far beyond the general acceptance of that term. This treatise embraced not only a valuable epitomised history of many rich and valuable discoveries, but traced with diligent care the early dawn, growth, and gradual application of the sciences of electricity and magnetism to our worldly requirements and intercommunications on land and sea. During the last twenty years there has, however, been a great advancement made in our knowledge of electricity and magnetic forces, and the necessities of the times needed a fuller development of the principles and the application of these powers. Dr. Noad, whose "Manual of Electricity," and "Student's Text-book of Electricity," and public lectures, has made his name well known, has taken up the subject at the point where it rested in Sir W. Snow Harris's treatise, and brought it down to the present hour. In this new and enlarged edition, edited and very much improved by Dr. Noad, we have a clear and complete exposition of the science, embracing the results of the researches of Faraday and Professor Airy and the recent great progress made in the realms of terrestrial magnetism. In the work under notice we have chapters devoted to the elucidation of the history, theory, and application and laws that govern and regulate magnetism and electricity in connection with the following:—The natural magnet, the artificial magnet, the electric magnet, magnetic electricity, thermo-magnetism, diamagnetism, magnetic instruments, their

construction and use, law of magnetic force, terrestrial magnetism, review of magnetic theory, the mariners' compass. The chapters on terrestrial magnetism and the early history, rise, progress, and present perfection of the mariners' compass, are deeply interesting and eminently instructive.

Nor can we pass over without instancing the valuable exposition given at the conclusion of the work, the exposition on "Codes of Telegraphic Signals" and "Measurement by Magnetic Needle."

To officers, captains, and seamen in the navy and merchant service, and to civil engineers, surveyors, and telegraphic clerks, if they are desirous of having a clear insight into the laws that regulate their work in practice, this new volume on the general principles of magnetic science will be found most serviceable.

Magnetism has not yet been made to unfold all its wonderful and latent powers. It is capable of being utilised to a still greater extent than what many are wont to suppose. It is not generally known yet that ordinary magnetism can be applied to render important benefits in many of our workshops, where the nature of the employment is destructive to the sight and the health of our operatives. Ordinary magnetism has already been, to a limited extent, employed for the separation and collection of particles of iron, and the injurious and dangerous dust of steel generated in the process of needle-grinding has been caught up by the employment of permanent magnets, and the lungs of our workmen saved from certain diseases.

Casting our eyes back again over the volume, we cannot too highly commend it to the attention not only of those for whom its knowledge is specially intended, but to all intelligent persons of every grade and class. The volume is replete with information; no subject is unnecessarily introduced or discussed; and, as a whole, it is unexceptional, and thoroughly practical in all details.

The Mining Magazine and Review: a Monthly Record of Mining, Smelting, Quarrying and Engineering. Edited by NELSON BOYD, F.R.S., &c. London: Henry S. King and Co., 65 Cornhill, E.C.

THIS new monthly magazine, the first number of which has been issued with the new year, deserves to succeed, if the first number is to be accepted as the criterion of its future make-up and inside worth. We have seldom read four articles with greater interest than we have those articles on "The Coal Commission," "Boiler Explosions," "The Importance of Nitro-Glycerine Explosives for Underground Quarrying Purposes," and "The Progress of Mineralogy." The first article is by the editor, and it is a thoughtful review of the coal question, dealing with the serious consideration of the probable amount of our coal deposits, our still possibly existing coal beds on land and under the Channel, and the chances of our meeting our difficulties in the future, in the generating of other forces, or the development of present and existing ones. The coal question in all its bearings is a most important one, viewed in relation to our wants, in its bearings with manufacture, smelting, steam, household uses, &c. Mr. Boyd's views are sound and rational. "Boiler Explosions," an article illustrated with cuts, is a practically-argued, clear and sensible contribution, and ought to command the serious attention of railway directors, steam-boat companies, and, above all, boiler manufacturers. Accidents would be rare if the lessons inculcated in this article were digested and understood. The contribution on nitro-glycerine explosives will be deeply interesting to our mining and quarry proprietors.

Though advocates of caution, yet we think the Government stand in their own light in prohibiting the use of nitro-glycerine explosives. We consider that their use is less dangerous in many particulars than gunpowder, and though no matter what cry may be raised against their application in mining and

quarrying purposes, they will force their way yet despite of all opposition.* By their use more building-stone could be blasted by several tons at each operation, and the cost of materials thereby cheapened considerably. In fact, these explosives are more certain and reliable, when understood, than gunpowder, and whether tried in limestone or other building-stone, or used for unearthing mineral ore, they are equally applicable.

"The Progress of Mineralogy" deals with the scientific as well as with the practical outline of our discoveries in this branch of our knowledge. No subject can be more interesting to the miner than the labours of the mineralogist and geologist. The contribution is from the pen of one whom we believe thoroughly understands his subject.

The other features of this new magazine are—a summary of current topics, reviews of mineralogy in Cornwall and geology at Oxford, scientific news, and notes on notable things. We wish the new venture every success. There is plenty of room for its sphere of operations in the British Islands, and its practical usefulness ought to secure it the approval and support it deserves.

How to Publish a Book: being Directions and Hints to Authors. By ERNEST SPON. London: E. & F. N. Spon, 48 Charing-cross.

THIS very concise treatise should be in the hands of every one connected with the literary world. Within the small space of some twenty pages the author gives in a clear and intelligible manner everything required to be known by intending authors.

Address of Thomas Hawksley, Esq., at Opening Meeting of Institution of Civil Engineers, London.

THIS pamphlet reached us as we were going to press. An abstract of the address will be found in our pages.

IMPROVEMENTS IN BELFAST— A LESSON FOR DUBLIN.

WE are extremely glad to find that on the installation of the new Mayor of Belfast, the incoming and outgoing Mayors showed the interest they took in the affairs of that prosperous town, by noticing the sanitary deficiencies existing, and gave a promise that these important matters would not be overlooked in the future. The new Mayor instanced the foul blot to the town, the Blackstaff stream, or rather open sewer, and said:—

"As respects the Blackstaff nuisance, the highest honour that could be conferred upon me during my year of office would be to see it annihilated and destroyed, and our streets paved with square setts, to the great comfort and convenience of the inhabitants. Mr. Ex-Mayor and gentlemen, our fine town is speeding onward with a wonderful and unheard-of progression. Much requires to be done, and done speedily. I call upon every one of you by the love he bears to his native town, or the town of his adoption, by every feeling of public spirit, by the purest and loftiest patriotism, to leave no stone unturned to make it a model town, and second to none in the empire."

The Ex-Mayor, Mr. Johnston, has not been behind-hand, either in instancing the work required to be done, as well as what has

* As we were going to press, the report of the committee appointed by the Secretary of State came to hand, respecting the employment of gun-cotton and other explosives alluded to in the above notice. It gives us much pleasure to see that they have taken a practical view of the question at last. "The committee, after a careful review of the documents in their possession, and of the evidence of the officers above-mentioned and others, respecting the use and application of compressed gun-cotton, principally as regards its employment for military purposes, consider that its use is not only unattended by either uncertainty or peril, but that the material, as an explosive agent, is effective, certain, safe, portable, and easy in employment. The committee, therefore, feel that they are warranted in the expression of a strong opinion of its great value for military engineering purposes generally, and for submarine mining. . . . The committee, therefore, feel no hesitation in recording their opinion that there is no reason why the War Department should relinquish the manufacture of compressed gun-cotton."

already been achieved. From his statement we learn:—

"The number of private streets passed and sewered from July, 1866, till December, 1871, was 490. The number of houses and buildings approved and superintended during the last six years was 7,850. During the year the number of new houses and buildings erected was 1,240, making, during the last year, the large number of 14,105. The increase in valuation this year has been nearly £15,000, making the present valuation about £44,752. During the year also 45 private streets have been passed and sewered by owners of property, and 19 compulsory orders of Council. The district sewers for Crumlin-road and Oldpark-road have been completed. North-street has been thoroughly sewered and paved with square setts, and a large number of new footings and crossways have been made. Considerable improvements have been made in the markets, especially, the new flax and fruit market, the new hay and straw market, and the alteration in the vegetable and grain markets. Much has been done—there still remains much to be done. With our increasing population, the problem presented by the natural difficulties of our position, as to drainage and sewerage, become more and more serious and imperative. In view of the immense excitement upon sanitary conditions caused throughout the whole kingdom by the recent illness of the Prince of Wales, no one can regard with indifference the sanitary arrangements of this town, which, I may be allowed here to say, emphatically call for immediate and decided action. It comes home to nearly every merchant with a warehouse, as well as to the poorer inhabitants, who skirt the Lagan, that we have not yet devised a way to get rid of our sewage; and the ravages of epidemics in our midst prove that unless this matter be taken in hand at an early day, we may be visited with an appalling plague. At present, new sewerage districts are being created, and new sewers built without due regard to the means of discharge or capacity of existing sewers to stand the extra strain, and it is clear that a radical and thorough change of our system is peremptorily called for. Powers of the Council under existing Acts are not sufficient to enable it to undertake the necessary works, and my belief is, that without legislation there is no possibility of accomplishing what we require. It is expected that the Government will introduce, during the next session, a great measure of sanitary reform, in which, perhaps, provision may be made for circumstances like those in which we are now found; and it would be well that we should watch the Bill with special care, and with the view, if possible, of suggesting provisions suited to our case. Another necessary reform, to which I need only allude, is the widening of certain streets which are now overcrowded, and the traffic in them getting dangerous to human life; and the opening of new streets to relieve the pressure, and also to develop the human facilities of the town most beneficially. It may, or may not, be considered essential to these improvements that we should be at the expense of obtaining powers by Act of Parliament, but there is no doubt whatever, in my own mind, that the call is becoming too urgent to be withstood, and I shall be happy, Mr. Mayor, if your year of office is made much more distinguished than mine has been, by the determined movement of the Council in this direction, and the hearty co-operation of the inhabitants of the town in order to render it successful."

The inhabitants of Belfast have reason to feel thankful for such happy announcements of necessary work long deferred, and calling for immediate action. Here is a lesson for the litigious and narrow-minded officials of the Dublin Corporation. The sorry and ludicrous figure our municipal body cut on the occasion of the inauguration of the new Lord Mayor, is enough to make angels weep and demons dance with very joy. As we are not political journalists, we will not allude to the undignified behaviour further. What if the Angel of Pestilence were to smite with a vigour and a vengeance at the doors of the guilty, who by their actions are murdering the poor by their wilful neglect, and laughing God's precepts to scorn! The incarnation of self and the insolence of office, and the incapacity to perform, or to let others perform, the soul-and-body saving work that this city requires, is a terrible picture to contemplate. Behold Belfast, ye slovens, who are sitting like ghastly nightmares on the heart of our city, and be shamed, and bestir yourselves! Rid the capital first of dirt, and let us have no more building of castles in air with the people's money, and at the cost of the people's lives!

THE ROYAL IRISH ACADEMY.

At the last general meeting, held at the Academy House, 19 Dawson-street, Professor Hennessy, F.R.S., V.P., presided. The Secretary (Professor Sullivan) announced the receipt of several presentations, the principal of which were the following:—Bust of the Very Rev. Henry Dawson, Dean of St. Patrick's, who died in 1840; presented by his son, the Rev. Arthur Dawson. Dean Dawson's collection of antiquities formed the principal nucleus of the present museum of the Academy.—Centenary medal and Gendekbuch, commemorating the hundredth anniversary of the foundation of the Royal Hungarian Mining and Forestry Academy of Schemnitz.—Ten decorated roundels, or fruit platters, formerly belonging to Lady Ossory; presented by Mr. W. H. Gregory, M.P., through the late Rev. Dr. Todd.—Two volumes of the proceedings of the late Record Commissioners, for the period between 1809 and 1826; presented by Mr. R. H. Jephson, through Mr. W. H. Hardinge.—Report on the Silurian and Devonian plants of Canada; presented by Principal Dawson, McGill College, Montreal.

Mr. C. R. C. Tichborne, F.C.S., read a paper on "The Action of Heat upon Solutions of Hydrated Salts."

Professor Hennessy read "Notes of Observations of Phenomena in Optical Meteorology."

These papers were referred to the council for publication.

Mr. Hugh Leonard, Geological Survey of Ireland, was elected a member.

We hope to see the Academy's sphere of usefulness enlarged during the year, and more interest taken in its proceedings on the part of the nation at large.

THE SCIENTIFIC EXPEDITION.

THE sailing of the scientific expedition for the exploration of the sea bottom of the South Atlantic and Pacific oceans is now under weigh from Boston. The well-known Prof. Agassiz is to be accompanied by his wife and by Count Courtales, with other *savants*. The professor has written a letter to the superintendent of the United States Coast Survey, in which he anticipates what the results are likely to be, in the extending of our knowledge of natural history. The letter has appeared in the *New York Tribune*, and, though it may give rise to impressions or hopes that may not be realised, the professor says he has written it in the hope of shewing "within what limits natural history has advanced towards that point of maturity when science may anticipate the discovery of facts." Prof. Agassiz goes on:—

"I will not undertake to lay down the line of argument upon which I base my statement beyond that there is a correlation between the gradation of animals in the compilation of their structure, their order of succession in geological times, their mode of development from the egg, and their geographical distribution upon the surface of the globe. If that be so, and if the animal world, designed from the beginning, has been the motive for the physical changes which our globe has undergone; and if, as I also believe to be the case, these changes have not been the cause of the diversity now observed among organised beings, then we may expect from the greater depth of the ocean representatives resembling these types of animals which were prominent in earlier geological periods, or bear a closer resemblance to younger stages of the higher members of the same types, or to the lower forms which take their place now-a-days. It lies in the very nature of these animals that, among vertebrates, neither mammalia nor birds can exist in deep waters; and if any reptiles exist there, it could only be such as are related to the extinct types of the Jurassic periods, the Ichthyosauri, Pleiosauri, and Pterodactyles; but even of these there is very little probability that any of their representatives are still alive. Among the fishes, however, I expect to discover some marine representatives of the order of Ganoids of both the principal types known from the secondary zoological periods, such as Lepidoids, Saurioids, Pycnodonts, Cœlacanthes, Amioids, and Glyptolepis-like species may even be looked for. Among Selachians some new representatives of Ces-

tracientes or Hybodontes may be forthcoming, connecting the latter more closely to Odontaspis. I also look forward to finding species allied to Corax, or connecting this genus with Notidanus; perhaps also Jurassic-like forms. Among Chimaeroids we may expect some new genera more closely related to the extinct types of that family than those now living. Among ordinary fishes I take it for granted that Beryx genera may be added to our list, approaching, perhaps, Acanus, or rather Sphenoccephalus; also types allied to Isticus, to Anenchelium, and to Osmeroides, Elops, and Argentina. Dereetis and Blochius may also come up. Species of all classes of the animal kingdom which have been very rarely met with by fishermen and naturalists are likely to be found in the deepest waters, into which neither hooks nor nets are generally lowered. Nothing is known concerning the greatest depth at which fishes may live. Upon this point I hope to obtain positive data."

Here follows a description of mollusca and crustacea which the professor expects to meet, and then the letter continues:—

"But there is a subject of great interest likely to be elucidated by our investigation—the contrast of deep-sea fauna of the northern with those of the southern hemisphere. Judging from what Australia has already brought us, we may expect to find that the animal world of the southern hemisphere has a more antique character, in the same way as North America may be contrasted with Europe, on the ground of the occurrence in the United States of animals and plants now living here, the types of which are only found fossil in Europe. There is still one kind of evidence wanting to remove every possible doubt that the greater extension of glaciers in former ages was connected with cosmic changes in the physical condition of our globe. All the phenomena related to the glacial period must be found in the southern hemisphere with the same characteristic features as in the north, with this essential difference, that everything must be reversed; that is, the trend of the glacial abrasion must be from the south northward; the lee side of abraded rocks must be on the north side of hills and mountain ranges, and the boulders must have been derived from rocky exposures lying to the south of their present position. Whether this is so or not has not been yet ascertained by direct observation. I expect to find it so throughout the temperate and cold zones of the southern hemisphere, with the sole exception of the present glaciers of Terra del Fuego and Patagonia, which may have transported boulders in every direction. Among the facts already known from the southern hemisphere are the so-called rivers of stone of the Falkland Islands, which attracted the attention of Darwin during his cruise with Capt. Fitzroy, and which have remained an enigma to this day. I believe it will not be difficult to explain their origin in the light of the glacial theory, and I fancy now they may turn out to be nothing but ground moraines, similar to the 'Horsebacks' of Maine. I believe it will be found in the end that so far from being accumulated by the sea, the drift of the lowlands of Patagonia has been worn away to its present extent by the continued encroachment of the ocean, in the same manner as the northern shores of South America and of Brazil have been."

Thus Louis Agassiz hopefully writes of this bold enterprise, and we will not say he is not warranted in being sanguine of the success of this scientific exploration. What is dredging the Tiber for antiquities even, compared with dredging the deep sea bottom in pursuit of science? We need not answer.

THE WORKING MEN'S COLLEGE.

THE Working Men's College established a few years ago in London is progressing fairly. Up to the present it has given educational facilities to working men of every branch of trade, and even to many who did not belong to occupations particularly requiring technical instruction. The college is divided into six classes. First, there is the general body of matriculated students. The second class is that of certificated students, who, at the end of any course, have been found competent in the subject of that course. Thirdly, there is the class of scholars, that is, those who prove themselves competent in any one department of the college studies. The associates, or permanent members of the college, being such students as have shown by examination that they have attained the degree of liberal education which the council believes to be within the reach of members, are the fourth class. Fifth are the fellows, chosen from the asso-

ciates, and taking part in the work of education. The sixth and highest class is the council of teachers, recruited from the fellows to the extent of at least one-third of its members, and prepared to assist in the formation of new colleges in London or other parts of England.

The last report shows that the attendance in the adult school has been, on the whole, good. During the year covered by the report the length of time for which students ordinarily stay at school is rather short. It would be desirable to see an improvement in this direction. We learn from the report that the shortness of stay is attributable to various causes, "the two most constantly recurring being the uncertainty and irregularity of employment in London, and the tendency of the class from which the pupils are drawn to regard the power of using the primary rules of arithmetic, and of writing fairly from dictation, as constituting almost a liberal education. To this must be added the irksomeness of continued mental strain upon men who, from the want of early training, and from the habits of their life, have not been habituated to study. There are, however, some marked exceptions, some of those who began their college life in the school now holding respectable positions within the college itself."

The average number of students attending is about 217 adults, and of these 39 are porters, messengers, packers, labourers, and under-warehousemen; 20 are clerks; 15 are shopmen; 13 are shoemakers; 11 are carpenters and joiners; 10 are tailors; 7 upholsterers; 7 waiters and servants; 6 painters; 6 smiths; 5 watchmakers; 5 coachbuilders; 4 weavers; 4 firemen; 4 bookbinders; 4 hairdressers; 4 map-tracers; 3 plasterers; 3 farriers; 3 plumbers; 3 engravers; 3 jewellers; 3 opticians; 2 bricklayers; 2 masons; 2 confectioners; 2 dentists and cuppers; 2 composition ornament makers; 2 ironfounders; 2 passe-partout makers; 2 prison warders; 2 printers; 2 portmanteau makers; 2 wheelwrights; 2 zinc-workers; a soldier, a pianoforte maker, a post-office sorter, an artist's colourman, a French-polisher, an artificial flower-maker, a cooper, a greengrocer, a gunmaker, a harness-maker, a cabinet-maker, a mathematical instrument maker, a mineral water maker, and a musician.

The Christmas *conversazione* of the college has been held in the new rooms at the rear of the house in Ormond-street, now used for the first time. The principal of the college, the Rev. T. D. Maurice, made an appeal six years ago for help to enable the new institution to erect rooms for museum, lecture-hall, room for art-classes, &c. It was not to be supposed that a body of working men in their infant state could erect a large pile of buildings by their own means, so a local sympathy was asked. A site was originally provided on the freehold property of the institution, and on this the new buildings now opened have been erected. The new buildings are not yet completely finished in their details. They show six arched rooms. The red brick columns show stone capitals, which remain as yet uncarved. Some of the students of the institution will likely manipulate upon them with increased art-knowledge. It may be mentioned here that the art department of the college has been under the general superintendence of Mr. Ruskin. The foundation of the museum and the hall above it are already laid, and as soon as funds are augmented the work will proceed. Sir Francis Goldsmid, M.P., and the Goldsmiths' Company of the city of London, have begun the new year by sending two donations—the former £20, the latter £25—towards the building expenses of the institution.

At the *conversazione* the vice-principal, the Rev. J. T. Brewer, was present, also Mr. W. Cave Thomas, director of the art department, and Mr. Thomas Hughes, M.P., who was one of the founders and most active friends of the college. We wish that Dublin could boast of a similar institution under some necessary modifications. We fear,

however, the establishment of a Working Men's College in this capital is a somewhat yet distant event. In the meantime our working men should avail themselves of our mechanics' institutes and schools of art, and make the best use of their opportunities, for a time will hereafter come to many when they will regret their neglect of education and technical instruction. We wish the Working Men's College of London every success; and trust that its worthy principal and departmental directors will be enabled to continue their labours in the interest of the working men and the common weal.

ON A CONDENSER FOR STEAM ENGINES.*

THE object of this paper is to describe a patent double condenser with tappet valve gear for the condensation of steam without an air pump. The condenser is made in two compartments, higher and lower.

The exhaust steam pipe, 3, from the engine, communicates with the top of the higher compartment, 1, which has at its bottom an aperture, 4, with a valve, 5, opening into the lower compartment, 2, whilst the latter has also in its bottom an aperture, 6, provided with a valve, 7, opening into the waste water tank or discharge pipe, 8. The injection water for condensation enters by a rose nozzle projecting into the upper part of the higher compartment. A snift valve, 20, is on the top of this condenser for allowing any escape of air when blowing through before starting. The condenser valves, 5 and 7, which open the communication between the higher and lower compartments, are metal discs faced with india-rubber, and are kept in their places by spiral springs, 11 and 12, acting upon the ends of levers, 18 and 19, which are keyed on shafts, 33, coming through stuffing-boxes in the side of the condensers, the requisite amount of elasticity being regulated by a screw and nut on the upright spindle, marked 32, which is kept in position by being attached at its upper end to a cast-iron bracket fixed to the side of condenser.

Previously to starting the engine it is necessary to blow the air out of the upper vessel by passing steam through the engine in the usual way. The engine being started, the condensation goes on in the ordinary manner, the injection water being brought from the river or tank by the vacuum formed in the condenser. The engine having made a certain number of strokes, a small quantity of steam from the boiler is admitted to the lower vessel through the steam valve, 17, which displaces any air that may be in it. The water valve, 15, being then opened, a small jet of water is thrown into it, which condenses the steam used for displacing the air, thereby forming a vacuum similarly as in the upper vessel upon which the upper condenser valve, 5, opens and allows the products of condensation to fall into the lower condenser. By the revolution of the shaft, 29, and tappets, the air valve, 16, is then opened, which destroys the vacuum in the lower vessel; the atmospheric pressure on the underside of the lower valve being thus counterbalanced, the water opens that valve by its weight, and passes into the waste pipe, the valve closing again by the action of its spring and lever, the operation being repeated continually. The pipe for conveying steam from the boiler to the lower condenser, for displacing the air and forming the vacuum, is furnished with a reducing valve, by which the pressure is reduced to 1 lb. or 2 lb. above the atmosphere, this being found sufficient pressure for the purpose, and making the quantity of steam used very small, as the lower vessel only requires to be blown out at about every ten or fifteen strokes of the engine, that being regulated by the operation of the tappet gear. The air, steam, and water valves, 15, 16, and 17, are equilibrium valves, and are driven by bevel gearing, 30,

on an upright shaft, 24, which is actuated from any convenient part of the engine.

In the apparatus in operation at the City Saw Mills, Londonderry, the upper condenser is 3 ft. 6 in. high by 2 ft. in diameter. The engine is compound, having two cylinders of 15 in. and 21 in. diameter respectively, and both of 3 ft. stroke. The engines were making forty revolutions per minute when the accompanying diagram was taken from the low-pressure cylinder, and were driving two saw frames and one circular saw. The boiler pressure was 30 lb. The lower condenser is 2 ft. 4 in. diameter by 12 in. high. This space in the one at work is much too large, as it should be of only sufficient capacity to contain the products of condensation during half a revolution of the tappets, i.e., when the lower vessel is emptying, which it does almost instantaneously, from the discharge valve being made of large diameter.

The injection to the lower condenser is taken from a small cistern overhead, which is supplied with water from the river by a force-pump. Where the supply could be had from the town pipes this pump could be dispensed with. In positions where cisterns would be inconvenient or impracticable, a large-sized air vessel can be used, into which the pump would force the water, from which it would issue into the condenser upon the water valve being opened by the revolution of the tappet. This would be the proper arrangement for marine engines, the water being supplied by the feed or bilge pumps, or convenient means. For marine engines it would also be necessary to have the condenser in such a position that the lower discharge valve would be a few inches above the load water line, so that the waste water would run off; the tappet gearing being driven from any convenient part of the engine, or by the donkey engine. For land engines these condensers can be put in any position convenient to the engine, not more than the usual height above the injection water, the discharge valve emptying into a sewer or pipe in the usual way. The indicator diagram was taken off the engine when at work with the condenser on, the vacuum in it at the time being 25 in.; the injection being drawn through 150 ft. of pipe, and raised to a vertical height of 14 ft. 3 in. From the peculiarity of the position of the condenser it is working under several disadvantages, as it is placed so that the steam from the engine has to pass through a water heater and 15 ft. of pipe before reaching it.

THE NEW SOCIAL SCHEME.

THE new social movement, to be partly composed of representative working men, and in whose interest the Lords and Commons were to proceed to legislate at once, is again on the boards after a temporary lull. Mr. Scott Russell returns to the development of the scheme, which was so fiercely assailed in the autumn by rival political parties, who thought they discovered in the prematurely-disclosed plans an artful bid for political power. Whether the scheme ever assumes definite shape or not, there are germs of good in it, and if it were possible to work the scheme now embodied by Mr. Scott Russell, much good might be effected. In its present shape, in the eyes of many it will look to be an Arcadian, or rather Utopian scheme for the regeneration of the working men. Could the working men realise it, simple and unadulterated, and divested of palatial attachments, we might hope that something practical would eventuate from the scheme. After quoting the seven resolutions accepted by the Council of the working men (already before the public), Mr. Scott Russell proceeds with the consideration of these resolutions at length as the basis of legislation.

We give passages from the preamble:—

"The first resolution necessarily involves the appropriation of land around our villages, towns, and cities, in order to form town lands, village lands, and homesteads for the healthful rearing and training of English families. I think it must be

stated, as the preamble to this measure, that in some other countries the surrounding lands are held by the inhabitants of villages and towns for the common good, and that they thus hold gardens and cottages subject to certain charges, but also in some cases entirely free of ground rent; and that these more highly privileged foreigners are the competitors of our skilled workmen. It should also be stated that, while some of the lands are appropriated for dwellings, others are held as a corporation for the common good. I think it must also be stated in the preamble that the Legislature of England has already taken from the people of England a certain number of millions of acres of common land, now worth a certain number of millions sterling. It may also be stated that the Legislature did not probably foresee the enormous evil it was doing in depriving the coming generations of all this heritage, which was to them an entailed estate. It may be necessary to justify the proposed appropriation of land, by showing that it is a purpose of public utility, just as a railway, or a harbour, or a canal is one. The preamble, then, must show that the aim of rearing and cultivating healthful, well-doing, and skilful English families is an object of public utility.

"Under the heading 'Parliamentary Powers' Mr. Russell says that the quantity of land taken for the rearing of families should be one acre for every one-tenth (? for every ten) of the inhabitants in towns exceeding 20,000, but half that quantity per head where the town exceeds 100,000, and in towns and villages under 10,000 it may reach one acre to five of population. One half shall be appropriated to detached cottages in gardens, the other half shall be held as common land left free in the middle of the cottage ground, within which there may be enclosed schoolhouses, with their playgrounds and gardens, recreation-grounds for the people, a town hall, market-houses, and places of instruction. The corporation must also have powers for road-making, draining, laying on water and gas throughout this purchased property, letting and receiving rents, levying of rates, and erection and maintenance of buildings. Also, the corporation must have powers to purchase and destroy crowded and unwholesome dwellings in the town or village, and to appropriate the land for the common good.

"In considering the pecuniary resources at the disposal of the nation for this great national work, he urges that a town of 10,000 inhabitants would have to pay an annual rental of £2,500, taking the simple agricultural rental of land in England at 50s. per acre. This is to be found by 1,000 families, who pay to the corporation 1,000 rentals of 50s. each. He then specifies certain events by which lands gradually acquire a special or local value by the growth and wealth and labour of the people, and continues:—

"Were land a mere movable commodity, this question could have been easily settled by a mere restitution of a million of acres of the appropriated common lands, and their distribution in the places where they were wanted. But as any attempt at a material restoration of this kind must be impracticable in the changed state of society, there appears to be no equitable mode of distributing the expense of restoring the common land except by imperial taxation; and as the persons who have appropriated and benefited by these common lands are of the rich and not of the poor, it appears just that the tax for this re-appropriation should fall upon the rich. A property tax is, therefore, the most evident and equitable way of restoring the common land to the common people. A third source of revenue is the rental of the cottages. A rental of 105s. per annum for the cottage will not only pay for its building, but will repay the capital within a moderate number of years; and thus a total rental of 155s., or £7 15s., per annum, will give a family home, health, and garden-ground. From all these sources of revenue a certain income can manifestly be provided—an income secured by the local community on a property of growing value, and also secured by a property tax. The mode of obtaining the capital on that revenue is the next consideration. There seems no doubt that the capital wanted for these purposes cannot be less than £150,000,000 sterling. This is the price of a war; but it differs from a war in this respect—that it is not waste, but investment. The rentals of the cottages and gardens will defray the interest and repayment of this £150,000,000, and the land tax will enable the artificial value of the land to be converted into Consols. All the property will remain in the country, and the increased value of the human beings reared upon it—if I must express the value of human beings in coin—will be 1,000,000 skilled men, worth to the country more than £50,000,000 per annum in the enhanced value of the productions of their industry."

"This section concludes with a passage in which

* Read before the Institution of Engineers and Shipbuilders, Scotland, by Mr. J. W. McCarter, Londonderry.

the following interrogative argument is put:—Since our villages and towns and land tax give ample security for the repayment of the capital, can there be any reason why the nation should not seek to raise that capital in a manner most wise and economical?

"On the subject of the organisation of self-government it is laid down that wherever 500 or more people dwell together in an area of a square mile they shall have power and shall be required to organise themselves for self-government. The community shall vote by heads of families, and shall first choose a Mayor, resident in the village or town. Provision is then made for the other municipal officers. For the large cities of England, it is stated, an organisation already exists; and if changes are required, these must be so much affected by local peculiarities that special Acts of Parliament might be required to confer on them such powers as may be necessary to bring their government into the proper relationship with that of the surrounding towns and villages. 'With reference to the metropolis,' says Mr. Russell, 'I know no part of the kingdom in which the interests of the working classes stand more in need of a perfect metropolitan organisation. But the task of reorganising an aggregate community, comprising ten cities of 300,000 inhabitants each, is a matter of Imperial legislation, apart from the other towns and villages of England. The well-being of their inhabitants would require the organisation of something like 100 villages all round London, and it might not be difficult to give these villages their own self-government, subordinate to the metropolitan government.'

"Touching the question of food, Mr. Russell says that the market must do more than merely provide stores; it must exclude the adulterator, the manipulator, the spoiler of other men's food. 'Next after an organisation,' he continues, 'for providing the commodities of life wholesale, wholesome, and cheap, I reckon the rapid, frequent, exact, and economic distribution of commodities by organised postal delivery to be of the highest importance to the well-being of the common people.' He recommends a system similar to the Swiss carriage and parcel delivery, which is arranged as follows:—'Immediately on arrival of the mail-bags at a country post office, the ordinary postman goes out with his knapsack full of letters, and soon after him sallies out the parcel postman with a large hand-barrow. This barrow is of a very light and convenient structure, is divided into compartments, and closed against the weather. The parcel postman goes his rounds from door to door, and what he does there is well worthy of consideration; for he not only delivers and receives parcels, but he makes and takes payment for goods. You give him an order for a yard of cloth, a bobbin of thread, a ream of paper, or a bale of goods; you give him the price, the place, and the particulars, and by the next round of the post you may have them all on your table. The scale of payment is such that, while the Government is well paid, the public is well served.'

"The section on Technical Education contains little or nothing that is new. Mr. Russell thinks that the State should provide for the education of 100,000 skilled workmen, at a cost of £1,000,000 a year.

"In the section headed 'Leisure and Labour,' the following opinions, which cannot fail to be interesting at the present time, are given regarding the short hours' movement:—

"Eight hours of skilled labour should constitute a legal day's work; and if we look at the social, moral, and Christian view of the question, its expediency and value turn into justice and duty. The destinies of the human being must not be sacrificed to the dead matter, work, which he creates. Human families of souls must not be sacrificed for the conversion of eight per cent. profit into ten. We must also consider how the skilled workman and his family may be made a source of pride and profit to the nation. We should take pride in the condition, the character, and the bearing of English citizens, their wives, and their children. One argument against short hours of labour requires to be met. It is said that, in many branches of trade, machinery does nearly the whole of the work, and the human being creates but a small part of its value. That is an argument in favour of long hours of machine-work, but it is a still stronger argument in favour of short hours of human work. Let the machine work sixteen hours a day, and let a succession of two sets of men work with it eight hours a day each, and both the produce and the profits of the manufacture will be increased without the deterioration of the human being."

This is a pretty accurate epitome of the new social scheme put forth in the interest of the working men in England, and, we sup-

pose, if realised, Ireland would claim a participation of advantages. The Ministerial organs in London affect to partly laugh at the scheme, as they look upon it in the light of a "Tory dodge," or bid for power. The Opposition papers see that the scheme is brimful of good, and is worthy of every consideration. Our own belief is that the scheme is worthy of serious consideration and modification combined before it can be practically worked, at least at present. We thought it necessary to place the scheme for what it is worth before our Irish working men, and others who may be interested in the practical and permanent elevation of the working classes. The future of the working man in these islands is a deep problem, and the sooner we give our most serious attention to the subject, the better it will be for the entire human family.

A SONG OF MUD.

Mud! mud! mud!
Through the morning, noon, and night;
Mud! mud! mud!
On the pathways left and right.
Neville's got nothing to say,
And Bouncer is looking blue;
Pity our wrath should boil away
In this dirty Irish stew.
Mud! mud! mud!
A-spattering cabs and men;
Mud! mud! mud!
In cataracts now and then.
Make sure and insure your lives,
Don't trust too much to a boat,
Or venture out with your wives
Without a thick Ulster coat.
Mud! mud! mud!
'Tis fetlock high in each street;
Mud! mud! mud!
With a cutting wind and sleet,
Oh! to be a Lord Mayor,
And making one's grand debut,
The curse of each rate-payer
Thrilling soul and body through.
Mud! mud! mud!
Hol! pestilence cometh fast;
Mud! mud! mud!
For slaves to swim in at last.
What boots it if Dublin sinks,
If the Ark on Cork-hill floats
An Augean stable of stinks:
Come, citizens, man your boats!

CIVIS.

THE INSTITUTION OF CIVIL ENGINEERS.

Mr. Hawksley, the newly-elected President, delivered his inaugural address in the Institution on Tuesday evening, 9th inst. Passing from a brief allusion to the late gigantic struggle on the Continent, which had been commenced and terminated during the term of office of his immediate predecessor, Mr. Hawksley impressed upon his audience the necessity of thoroughly appreciating the lesson it taught, and expressed his opinion that the future safety, and possibly also the national existence, of this kingdom depended upon the judicious, wise, and far-seeing policy with which the Government of the day, and of every day, should be guided. Discrediting as he did the popular notion that England was invincibly strong within, and that her "streak of silver sea" was sufficient for her effectual protection without, he ventured to ask himself whether the engineering skill and resources of this country had been sufficiently availed of for the defence of their coasts, and for the maintenance of their undoubtedly needful power at sea. With the fullest desire to discountenance any wasteful expenditure of public money, he was nevertheless obliged to answer himself in the negative. After alluding to the employment of small, rapidly-moving "sea-hornets," each armed with a single gun of large calibre, as a means of harassing the large, unwieldy iron-clads of the day, Mr. Hawksley stated the four essentials for the construction of a floating policeman to be—First, a moderate draught; second, great stability; third, high speed when under steam; and fourth, a competent storage for fuel. Doubtless, the genius of their members of council, Sir William Armstrong and Sir Joseph Whitworth, not to mention others, had placed at the nation's disposal the means of constructing such a fleet as would enable their citizens to feel safe at home, whilst the country would command abroad that respect which continental governments and peoples never accord to the barking dog that cannot bite. Allusion was then made to their past President, Mr. Hawkshaw, who, having been called in to assist the military authorities, had succeeded in devising, amongst other matters, a system of plating with wrought iron so ponderous, and so securely combined, that it was believed the heaviest shot fired from an enemy's ship would be unable to tell de-

structively upon it. Turning to more peaceful topics, the piercing of the Alps by the Mont Cenis Tunnel suggested itself as one of the greatest, though not perhaps the most difficult, of the many important undertakings of the present age, and afforded much ground for congratulation. Another great work of foreign origin, the Suez Canal, had been recently so far completed as to allow of large ships passing from the Mediterranean to the Red Sea.

After condemning the unwise disposition lately manifested by their own Government to discourage private enterprise, which, with all its defects, had made England what she was, Mr. Hawksley considered the question of the new gauge proposed for the State railways in India, which, he stated, would introduce those very evils from which the wise and deliberate action of private enterprise was now effecting our emancipation at home. The Indian Government were abandoning the 5½ feet gauge to which the existing railways had been constructed, in favour of a French metre gauge, the crochety suggestion of some unknown individual. The Government were also about to introduce into India one of the worst founded and most perplexing measures of length with which it had been his fortune to become acquainted—a measure which based its claim to universal acceptance on the intangible ground that its length was asserted to be exactly one ten-millionth part of a quadrant of the earth's equatorial circumference. The introduction of the French metrical standard into India might possibly be justified on the ground of expediency, if England had previously adopted it; but till then he should venture the assertion that the attempt to force upon the Oriental mind a novel system, and the labour of acquiring what would be to it an uncouth jargon, was as injudicious as it would certainly be unsuccessful. Turning to the professional occupations of the hydraulic engineer, with which he was more particularly identified, Mr. Hawksley proceeded to criticise the measure passed last session, and which will come into operation on the 21st of the ensuing month, for the speedy, and perhaps, in its results, general application of the constant supply of water to the metropolis. Generally, Mr. Hawksley considered that great caution should be exercised in its introduction, on account of the fittings at present in use in the metropolis not being of a kind suited for a reception of the constant supply. The success or failure of this well-intended measure would depend, not so much upon the water companies, as upon the discretion with which the public authorities might proceed to put it into operation. Referring to the agitation now going on with reference to contamination by sewage of the sources of water supply throughout the country, and also the question as to the use of hard or of soft potable water, Mr. Hawksley protested that the unwarrantable phrase, "previous sewage contamination," had been invented to frighten her Majesty's subjects from the use of some of the purest and most agreeable descriptions of water the world can furnish; and he asserted, in opposition to the alarming views of certain theorists, that the doctrines in question rested on no foundation of ascertained fact or inductive theory. On the subject of the removal of the sewage of towns, no new suggestions of importance to the professional engineer had lately been made. It seemed, however, desirable to substitute for earthenware tubes, with numerous and imperfect joints, iron tubes, with few and perfect joints. By this simple means the escape of foul water and fetid gases from the drains into the lower storeys of dwellings might be effectually prevented. Atmospheric air as a motive agent might be expected to make its way into extensive employment, the application of this system to the transmission of postal telegrams having been attended with marked success. This system must rest its claims to support only on the score of convenience; the increase of friction with speed, and the long column of air to be set in motion, precluded the possibility of its being advantageously compared with other mechanical methods.

THE BIRKBECK LITERARY INSTITUTION.

THIS old-established and most valuable institution is advancing in strength and usefulness. It has, during its existence in London, been productive of immense benefits. The late Lord Mayor of London has acknowledged that it was to the instruction and knowledge he obtained in attending the classes of the Birkbeck, when a young man, that he owed his subsequent advancement and success in life. The prizes gained in the various classes in connection with this institution were distributed on the 5th inst. by Sir J. Pakington, Bart., M.P., in the presence of a numerous audience. Amongst those on the platform were Mr. Charley, M.P.; Dr. Brewer, M.P.;

Mr. Sheriff Bennett, &c. From the annual report it appeared that the number of persons attending the institution during the present term had reached the grand total of 2,439, which was the largest number ever attained. A very large increase had been made in the number who presented themselves for the purpose of undergoing the valuable test of examination. Ninety-four persons obtained prizes or certificates from the Science and Art Department of the Committee of Privy Council on Education; 79 were successful at the Society of Arts examinations; and 77 passed those of the Educational Council of the institution. Mr. Alexander H. Sexton has succeeded in obtaining the first of the three scholarships of the Royal College of Science, Dublin, which were offered for competition through the Science and Art Department. Mr. Sexton was one of the most distinguished students of the institution, having, during the past two years, obtained prizes or certificates in mathematics, theoretical mechanics, chemistry, acoustics, light and heat, electricity and magnetism, geology, mineralogy, animal physiology, physical geography, applied mechanics, steam and the steam-engine, metallurgy, practical geometry, and machine construction and drawing. It had been determined to bestow the title of associate of the institution upon those students who, by their success at the examinations, had given proof of the possession of a sound English education, together with a high state of proficiency in other subjects to be selected from a prescribed list, and the following members were elected as associates at the close of the examinations of present year:—Miss E. Backhouse, Mr. Wm. Burgoyne, and Mr. J. E. Cox. The prizes and certificates, about 200 in number, having been distributed, Sir John Pakington addressed the meeting in a long and eloquent speech, which he concluded amid loud cheers. Mr. Sheriff Bennett then proposed, "That this meeting rejoices at the prospect of increased usefulness opened up to literary and scientific institutions by the recent legislative provision for primary education." Mr. Charley, M.P., seconded the motion, and the meeting was also addressed by Dr. Brewer and others, and resolutions were adopted expressing the thanks of the meeting to the hon. examiners, to the teachers, and to Sir John Pakington for the eminent service he had rendered to the great cause of education, for his kindness in presiding on that occasion, and for the benefit he had thereby conferred upon the institution. We wish the Birkbeck every success, and hope that its career may be long and its usefulness sustained.

THE ROYAL COLLEGE OF SCIENCE.

PROFESSOR Stawell Ball, A.M., is delivering a course of lectures in the above institution on Mechanical Powers, otherwise Experimental Mechanics. His first and second lectures were on "Pulleys and Pulley-blocks," and "The Lever and the Screw." He illustrated his lectures by the aid of diagrams and working models. No subject can be more interesting or practically useful to working men than a practical exposition of the mechanical powers. It is thus that technical education is taught. We understand that when Professor Ball concludes his course he will be succeeded by other gentlemen, on subjects of a similarly practical kind. Professor Ball's lectures are being well attended.

THE TRADES CONGRESS.

A TRADES Congress has been sitting for some days at Nottingham. Delegates from the various trades throughout England and Scotland have attended. The many grievances affecting trades societies and systems of labour were discussed. Instances of the evasion of the Truck Acts were adduced; and Mr. Mundella, M.P., who took an active part in all questions affecting workmen, informed the congress that he had received a

promise from the Home Secretary that the Government would bring in a bill next session to remedy the still-existing evils in relation to the truck system. The basis of legislation on this matter, by which reform could only be accomplished, was the payment in future of weekly wages everywhere, the payments to be made in current coin, and, thirdly, the payments to be made without any deductions or stoppages whatever.

The Trades Congress, on the whole, will be productive of benefit, and the matter discussed will be suggestive to our legislators.

TENDERS.

For the erection of house and out-offices at Drumindoney, Co. Down, for R. W. Von Stieglitz. Mr. Wm. J. Watson, C.E., architect:—

Thompson	£2,975
Mahood	2,690
Wheeler and Rantin ..	2,520
O'Hear	2,510
Collen (accepted) ..	2,200

For constructing new drainage and other works for the Poor Law Guardians of the Newry Union. Mr. Wm. J. Watson, C.E., architect:—

Wheeler and Rantin (accepted) ..	£1,080
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TO CORRESPONDENTS.

THE CITY COUNCIL.—There were once very honourable and able men in our Town Council, and perhaps there are still, but we do not hear their voices of late. It may be that they are hiding their talents under a bush, or that they have gone on the long vacation since the late inundation of mud. One fact is clear, however—the talkers alone of late are the only persons who muster; and when they have severely pumped their unmoistened souls dry, they depart mutually satisfied that their brief and business-like transaction of city affairs needs a whet.

THE HOUSE IN DAWSON-STREET.—We have not heard that there is to be a great outlay of capital this year in new fittings, furniture, &c., or that the cellars are to be stored with a large supply of the best vintages. We admire hospitality, but not when it is exercised at the public expense. We remember a few years ago one worthy alderman who was voted a library for his advocacy of citizen privileges and municipal rights. His picture of the hospitalities of the big house was that during the term of one noted and noisy Chief Magistrate "the rats had got the rheumatism and the mice the catlepsy."

OUR EARLY ARCHITECTURE.—Mr. Brash's second paper in this issue on our early ecclesiastical architecture will be perused with increased interest. He establishes a *bona fide* case or rather cases in proof of the claims he advances, and which must be admitted, considering the weight and character of the testimony, not that of written records alone, but of existing buildings of stone, that can be still seen, measured, and examined, if any doubts exist upon these matters.

A STONEMASON.—Two excellent treatises on oblique arches and bridges are those by Hart and George Watson. The price of the first work is about 8s., and the second we think is 12s. Both treatises have plates; the latter has thirteen large folding ones, and the last edition is much improved by Barlow. Lockwood and Co., London, are the publishers.

THE DUBLIN SCHOOL OF ART.—In our present issue evidences are presented of the progress of the Dublin School of Art. In our next we will probably have the occasion of looking more minutely into the results of the latest triumphs in the halls of the Dublin Society.

THE CITY MARSHAL.—We believe there is a law which regulates appointments to corporate offices similar to that which relates to contracts. The man who is a member of a town council is not to contract or help his relatives in getting a job. It is a question for the Queen's Bench whether Lord Mayors, Ex-Lord Mayors, or Aldermen, presumptive or *de facto*, can canvass inside, and outside doors for their sons and cousins, and by that means, on the polling-day, pitchfork them into office.

J. F. (Darwen).—Received too late.

H. D.—In a day or two.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—JAMES EPPS & CO., Homoeopathic Chemists, London. Also, makers of Epps's Cacaoine, a very thin beverage for evening use.

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NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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VOL. XIV.—No. 291.

Our Old City and New Suburban Residences.



URING the present century the house property of Dublin has undergone startling and melancholy changes. Even within the last thirty years, the transformation in the character of streets and houses in

this city is suggestive of many sad and but few pleasing reflections. Let any person who desires to arrive at the full force of the truth which we wish to convey, procure an old directory of this city, and scan its pages, and he will at once see the vicissitudes which house property in Dublin has been subject to. The sexagenarian inhabitant or citizen can fully realise the situation from memory alone, without the aid of any reference. Between thirty and forty years ago many of the streets on the north side of the Liffey (among which may be instanced Cumberland-street, Glo'ster-street, Marlborough-street, Mecklinburgh-street, Summer-hill, Buckingham-street, Dorset-street, and several of the streets in the immediate vicinity of Mountjoy and Rutland-squares) were inhabited by rich and influential persons. Gradually, however, some of these, and more rapidly others, have fallen, and are still falling down, not to the condition of second class, but third and fourth class streets. Where one owner was thirty, and even twenty, years since, many of these houses are now let into from four to half-a-dozen tenements, occupied mostly by the working classes; and not a few of these once grand family mansions of our gentry are transformed into shops. Similar changes have taken place in various quarters on the south side of the Liffey, and many of these are in the vicinity of the squares also.

The fallen condition of the quarters known as the Liberties and the Coombe is of older date, and may be said to have immediately begun at the commencement of the present century. During the last twenty years, or less, the bulk of the new house property erected in the Rathmines, Rathgar, Roundtown, and other districts in that direction, have sprung up. A great portion of the inhabitants occupying this new house property are persons connected with the mercantile and commercial firms or small government appointments in the city; persons with no very large income, but who are a most respectable class withal.

In the first instance, the tide of migration took place on the part of many who had a wish to avoid the heavy taxes and rates of the city; but taxes and rates have since increased to such an extent in these townships that there is not a great deal of difference in the assessments. It is only on the score of health and a new semi-suburban residence that the inhabitants of these townships can be congratulated. While house property, to a very large extent, has increased on the south suburban side of Dublin, there has

been a very small increase of house property on the north suburban side beyond the Tolka river.

It was alleged a few years ago, before the toll-bars were abolished on the north side, that it was owing to their existence that house property did not advance northward. There may have been some truth in this statement; but even since the abolition of the turnpikes a very slight increase of building operations has taken place in the Drumcondra or Clontarf districts—scarcely any in the former. On the score of health, the Clontarf and Dollymount localities can offer great inducements for investment, though we must say that ground for building purposes cannot be obtained on very advantageous terms. We think that the owners of land in the Clontarf neighbourhood stand, and always have stood, very much in their own light. Had they offered favourable terms to building speculators, or had they built themselves to a limited extent within the last quarter of a century, the Clontarf neighbourhood and her Green Lanes would now be a most happy and prosperous one.

The Monkstown, Kingstown, Dalkey, and Bray localities got the start in the matter of marine residences, and they partly maintain it. With the bay in their front, and a bold and beautiful panorama of mountain and landscape in their rear, residence in these latter districts is healthful and enjoyable. Clontarf, Sutton, Baldoy, Malahide, and Howth have also their charms, in a pleasing mixture or combination of mountain, landscape, and ocean views; and we have no doubt but in the course of a few years more a portion of the tide of favour and fashion will set in on the north-side direction.

As to the class of dwellings built during the last twenty years on the south side, or in all the districts we have enumerated, we cannot speak without reserve. A portion of it has been erected by very respectable builders, but a very large portion of it, also, has arisen from mere speculation, or, in other words, it was "built to sell." The condition of the latter class of house property may be seen any day by a close observer. It is young in years, but old in infamy. This kind of house property will need to be always in process of yearly and constant repair, a burden to the owner or tenant, and a danger to the neighbourhood and a scarecrow to strangers. It will live an asthmatic life or waste away to a not unexpected dissolution, with the sins or curses of many unhappy families on its head.

Were the drainage connected with our old city mansions, now converted into tenements, properly attended to, they would be far preferable to reside in than the vast majority of our new buildings on the skirts of the city. Though not always well arranged, they were mostly well built, of good materials, and excellent workmanship. Even in their present dingy and woe-begone aspect, they will outlast by many generations, hosts of the new dwellings in course of erection. The value of the old materials of which they are composed—comprising a cut-stone frontage of the two first storeys, good brick, quoins, stone steps, columns and pediments, marble chimney-pieces, iron railings, thick lead guttering, wainscoting, timber, &c.—would more than pay for the erection of many of our present pretentious gimcrack residences of paper, lath, and plaster.

Improved dwellings for our gentry as well as our working classes is a necessity, and a strict surveillance on the part of our local and

governmental authorities that the sanitary requisites that are absolutely required are not ignored through culpable ignorance or conscious deception.

THE CORPORATION AND THE CITIZENS.

WE have repeatedly of late directed attention to the strange doings of our corporate authorities in and out of Council. If strangeness was the only characteristic and the only evil to be criticised, the citizens of this over-taxed and outrageously-mismanaged city might indeed feel thankful. Have our citizens—and in all sober seriousness we put the query—any spirit to tolerate the barefaced and persistent scandal that is weekly exhibited by committees made up of members of our Municipal Council? In Dublin we have the melancholy picture, and the more melancholy avowal, that our Corporation have no funds, and they are consequently unable to keep our streets, lanes, and courts from being chronic fever-nests of disease. In fact, we are led to believe that our Corporation is bankrupt; but to the bankruptcy of credit we fear that that of character must soon be added. We have never, in the course of a pretty long experience of the working of local and public boards, witnessed such scandalous proceedings—proceedings publicly and openly reported in the public press—as those in connection with our Town Council. Such persistent folly; such culpable neglect; such childish phraseology; such unpractical motions; such humiliating excuses; such brazen assurance; and such incapacity for doing a single thing in a practical manner, or in an upright and honourable way, we never before, and may we never again have the misfortune to witness.

The reports brought up for reading and discussion at the meetings of our Corporation are some of the most shallow and utterly misleading and bewildering compositions that are possible to imagine. Tinkered and soldered together in the most clumsy manner—amended, re-patched, and referred back to committee—thus they come, and thus they go, pitched from arm to arm, and from pillar to post, like Punch and Judy's child.

Notwithstanding the declared bankrupt condition of the Corporation's exchequer, we have several motions for increase of salary, or for new appointments which are not necessary. For instance, here is the borough engineer, about whose private worth or professional capacity we have no comment to make. We have a motion to relieve Mr. Parke Neville from his present labour, and instal him in future as a *consulting engineer* only, on the plea that his time will be altogether taken up in directing the new main drainage operations. What are the increased duties that demand from the pockets of the citizens an additional outlay of £500 for an assistant engineer and local surveyor? There are none that we can see but what can be performed with the help that is available at present. Why create a *bona fide* sinecure, at the people's expense, for any public servant? We have another motion for converting the two city basins into receptacles for the scavenge and filth of the city, with the intention of leasing the filled-up space for building purposes. Oh, most wise and sanitary corporate officials! You would let these reservoirs of filth that dwellings might be built thereon! You would place not even a bar in the matter of time—no clause that

would retard building operations at least for a dozen years! Killing is indeed no murder with you, most wise and puissant magnates!

We are to have hopper barges, too, for the removal of the scavenging soil, which is to be cast into the bay, a worthy pioneer balloon to Mr. Bazalgette's bungling main drainage scheme.

And, messieurs of our local parliament, you have become the apologists of the proposed metropolitan races—a scheme by which we will have a further development of organised English and Irish ruffianism established in the heart of our city. Shame upon ye! Why did you not hearken to the just remarks of one of your own members, and hesitate before inflicting the stigma of a chronic blackguardism upon our metropolis?

We are to have a slaughter-house in Marlborough-place; this is another of the wise outcomes of the addled corporate brain. Well, with a morgue for the human animal in the same locality, a slaughter-yard and shambles for the brute creation is not a bad idea, considering that it is a municipal one.

We have instanced on former occasions the illegality of members or quorums of committees voting away the public money for jobs without the concurrence of the meeting. At one of the latest meetings we find a rampant and ready apologist standing up unabashed and defending this conduct. "He thought the council might as well close up altogether if the committee were obliged to wait for a meeting of the council on every occasion when the expenditure of money was necessary." After this effrontery it is almost needless to comment further.

The citizens of Dublin, if they are desirous of retaining the honourable name of *citizen* unsullied, should, one and all, take steps for bringing our Corporation back to its senses. They have the power of doing so, if they have the will. There is the Local Government Board, and there is the Queen's Bench; and, first of all, there is free *entrée* for the opening of a correspondence with the Home Office. Mal-administration in Dublin has gone quite far enough in corporate matters, and it must be brought to an issue. One member in the Town Council pretty often tells his brother council-men on the committees that they should not be squandering the rate-payers' money; but this gentleman, like the truth, is too often in the minority, and the juggle and the junta escape unhurt.

There are other matters connected with corporate appointments and the administration of local affairs which we intended to have referred to, but we promise to return to the subject in a manner that will make some parties feel rather uncomfortable, and their tenure of office to the public injury considerably shortened; and the duties in other departments wonderfully reformed. So much for to-day is evil thereof.

NOTES ON THE ECCLESIASTICAL ARCHITECTURE OF IRELAND.

BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A. SCOT.

(Continued from page 20.)

ORATORIES OF THE SECOND CLASS.

THESE buildings are usually of larger dimensions than those we have been describing, and their architecture and construction somewhat of a more advanced type. One of the most interesting of this class is that known as St. Columb's House at Kells, County Meath. It stands in a backward part of the town, away from the ancient church, Round Tower, and those other remains which render this place so interesting to the antiquary. It is a rectangular chamber, 19 ft. in length by 15 ft. 5 in. in width, clear of walls, which are 3 ft. in thickness on the sides, the gables being 3 ft. 5 in.; it is 16 ft. in height to the eaves, and 38 ft. to the ridge; the pitch of the roof is therefore very steep. The original doorway was, as usual, in the west end, having a square head, and converging jambs; this

has been built up, and a ruder substitute broken through the south wall. There is a small semicircular-headed ope in the east gable, some height from the floor, and an angular-headed one in the south wall, higher still; both have large inward splays. The interior is spanned by a barrel vault, which helps to support the stone roof, and forms an over-croft, or apartment, which is 6 ft. high under the ridge. This apartment is lighted by a small ope in the east gable, and there are some indications of a wall having divided it. Access is gained by a square ope in the crown of arch, at the west end. The roof is constructed on the overlaid principle, of cubical and rectangular blocks of stone laid to the slope of roof, breaking joint, and bedded at an angle, to exclude moisture—the whole appearing quite sound, except where injured by ivy and other vegetation displacing the stones. The general masonry is of a superior class of rubble, the quoins and other dressings being squared with the chisel. The building is constructed of the hard whinstone of the locality. The courses of the roof do not appear to be dressed to the pitch; the angles having been left on, give the courses the appearance of a series of small steps. This mode of execution may have been to save the labour of cutting the hard stone.

When last I examined this curious little building, it was in a most neglected state. The interior has been much injured, and an attempt made to form a fireplace at the west end. The ground has been cut away all round, and the foundation course dangerously exposed. This building has been traditionally ascribed to St. Columba. Kells was originally a royal city; hither it is reputed our saint came, and founded a monastery about A.D. 550. Our authority is the Martyrology of Donegal, quoted by Colgan. This, however, has been disputed by Dr. Lanigan, who gives some grounds to doubt it. He says, the first religious foundation at Ceanannus (Kells) owes its origin to St. Kellach, an abbot of Hy, somewhere about A.D. 807.—(Lanigan; *Ecc. Hist.*, vol. ii., p. 131.) This may be true as regards the bishopric, but does not invalidate the tradition of St. Columb having here erected an oratory, and sojourned among the pagan Meathians for missionary purposes. This may have occurred, though Kells may not have become a place of ecclesiastical importance until after the time of Kellach. The building is of undoubted antiquity, certainly older than the time of Kellach; and its name being traditionally associated with the great northern apostle, whose *leabha*, or bed, in the shape of a flagstone, 6 ft. long, is to be seen in the over-croft, there can be no valid reason for doubting that at least it is of his age.

ST. KEVIN'S KITCHEN.

This strangely-named building is an oratory of the second class. In its original state it was a simple rectangular chamber, 22 ft. 7 in. by 14 ft. 10 in., clear of walls, which are 3 ft. 7 in. thick. The height to the eaves is 11 ft.; the perpendicular pitch of the roof, originally, was 22 ft. The masonry is of good-sized rubble, hammer-dressed, and carefully built; the material, principally mica slate, mixed with a few granite blocks; the quoins and door dressings are of good-sized blocks, and chiselled. An eave course of 5 in. projection and 3½ in. thick runs entirely round the building, the stones being neatly halved into each other at the joints. The original door is still in the west gable, though now built up; it is square-headed, with converging jambs. On the massive lintel is a projecting ledge externally, 9 in. thick on face, and 5 in. projection; in it are two circular mortices, one of which is partly broken away. This contrivance was evidently for the purpose of securing the door, which must have been an outside one. Over the lintel is a relieving arch. There is a rude rectangular window-ope in the south side, 3 ft. wide; it was formed, as I was told, by the parish priest, some fifteen years before my first visit in 1858; the attempt was nigh bringing down the building,

as over the window is a large crack, which extends into the stone roof. The original window was in the east gable; it was semicircular-headed, the arch cut out of a single stone, being 11 in. wide externally, with large inward splays. The upper part of the window remains, but built up; the lower part was cut away in forming the chancel arch, which occurred when a chancel was added and the oratory converted into a small church, with the addition of a sacristy. The ope is 5 ft. 2 in. wide, and 5 ft. 9 in. to springing; it appears to have been simply cut through the gable; no arch was turned but the form given by cutting the masonry. The nave is vaulted by a semicircular arch of rubble work; it is 14 in. thick at crown; the height from floor to soffit, 19 ft. 6 in. Between the vault and the stone roof proper is a chamber of the form shewn on section, the arch under the ridge is of pointed form, the mortar on its soffit looks fresh, and the marks of the centreing are quite apparent, showing that the sheeting consisted of narrow planks from 5 to 6 in. wide; it is lighted at the east end by a rectangular ope 1 ft. 3 in. high and 10 in. wide externally. The roof of the building is very high-pitched, and composed of oblong flags from 4 to 10 in. thick, and from 10 in. to 3 ft. in length; these slabs are dressed on the upper and lower beds, and on face to the slope of the roof; they are closely jointed, and the whole in fine preservation, excepting the ridge stone, which has disappeared.

On the apex of the west gable stands a circular turret or belfry, having a conical cap or low spire, and evidently an humble imitation of the great tower adjoining. I found the diameter at the base or junction with roof 3 ft. 3 in. in clear, thickness of wall 1 ft. 7 in., diameter at top 3 ft. 8 in., thickness of wall 1 ft. 3 in. It is divided into three storeys by two offsets each 3 in., the entire height from floor to underside of apex of roof is 22 ft. 6 in.; the latter is conical springing from a projecting eave course 5 in. by 4 in. and has a vertical height of 5 ft.; it is in good preservation, a few of the apex stones only being missing. The masonry of the turret is coarse spawled rubble, and of a different class from that in the general building; there can be no question that it is an addition. Under the eaves are four opes, N., S., E., and W., each being 3 ft. high, 1 ft. 3 in. wide at bottom, 1 ft. 1 in. at top, square-headed; it has also two other opes of a similar form, one W. near the base 18 in. by 5 in., one E. 2 ft. above ridge 1 ft. 10 in. by 13 in. The entrance to the turret is from the over-croft by a door 5 ft. 3 in. by 1 ft. 6 in. Access to the over-croft is gained by an ope of 2 ft. square in the crown of the arch at the west end.

The alterations and additions made to the original structure are quite apparent; the foundations of the chancel can be traced. An examination of the east gable shews the connection of the walls, and a deep chase cut in it parallel to the rake of the original roof evidences that the roof of chancel was also of stone, and of a similar pitch. The sacristy is also a curious building; it stands at the south side of where the chancel was; it is 10 ft. by 7 ft. 8 in. clear of walls which are 3 ft. 2 in. thick at sides, and 3 ft. 10 in. at gables. The doorway was entered from the chancel, and is 5 ft. 8 in. high, 2 ft. 2 in. wide at bottom, and 1 ft. 10 in. at top, which is square. It had a small semicircular-headed ope in the east gable; it was also stone roofed, but the outside lining is nearly gone. The semicircular arch which supported it was entire when I examined it, but had spread to some extent. Curious enough, it is on the overlaid principle for one-third of its height from each springing, the rest having radiating joints—all rubble work.

It is quite evident that the oratory was converted at a very remote period into a church; the chancel and sacristy being added, and the bell-turret built on the gable, in humble imitation of the Giant Tower close by. This transformation must have been made at a very remote period indeed, from the evidence afforded by the existing remains, which are of a very primitive type, though

the masonry shows a positive decadence in its execution. The chancel was in existence in 1772, when drawings were made of the group by artists employed by Colonel Burton Conyngham.—Dr. Petrie (*Round Towers*, pp. 428-432) has given an interesting account of St. Kevin's Kitchen; many of his measurements are, however, incorrect, and I presume were given approximately; his sketches are, however, as usual, faithfully delineated. I have dwelt rather minutely on the details of this edifice because of its being a characteristic example of its class, and from the importance and accessibility of its position among the Seven Churches. The name given to it appears to me to be a modern one, yet still conveying some idea of its originally domestic character. According to Dr. Petrie, it is named *Cro Caoimhghin*, i.e., Kevin's House. In the *Annals of the Four Masters* the passage is as follows:—"A.D. 1163. Glendalough was burned, with *Cro Ciarain*, *Cro Caoimhghin*, and the church of the two Sinchells." Here the house, *Cro*, is distinguished from the church, which in the original is styled *Regles*. All the buildings I have been describing appear to have been of a domestic character, from the names by which they are popularly known. Thus we have *Leabba Mollagga* and *Leabba Deglan*, the bed or resting places of the saints named; *St. Columb's House*, *St. Kevin's*, *St. Ciaran's*. Numbers of places are named from the residences of remarkable ecclesiastics, as *Taghmon*, *Timolin*, *Timahoe*, &c., which are modernized forms of *Teach-Munnu*, *Teach-Moling*, *Teach-Mochoc*, &c., *teach* pro *ty* being the Gaelic for a house or residence. Dr. Petrie, to whose opinions much deference is due for the pains he has taken in elucidating this subject, appears to think that the buildings I have been describing were used by the holy men, whose names are attached to them, both as residences and oratories, and adduces many sound reasons for his opinions (*Round Towers*, pp. 352-354). I have much pleasure in supporting the views put forward by that eminent antiquary on this subject, having myself given it much thought and examined, sketched, and measured many of these curious and primitive buildings. *St. Kevin* is reputed to have been born in A.D. 498, and to have established himself at Glendalough, about A.D. 540. This date accords with the architecture of the original oratory ascribed to him.

THE DUBLIN SCHOOL OF ART, 1871.

CONCERNING the works of the students of the School of Art in connexion with the Royal Dublin Society's late exhibition—consisting of drawings and paintings executed during the past year in competition for the Society's medals, and some studies not in competition, together with some works of former years—we should wish two facts to be distinctly borne in mind: one very obvious, yet apparently sometimes forgotten, that these were the works of Art students not of artists, though in its deeper meaning, we believe, the true artist is ever the Art student; and also that the object of this and similar schools is to draw forth and foster the perception of the true and beautiful, by placing before the students the best examples and models, chiefly the noble creations of the genius of ancient Greece. Visitors to the exhibitions found no *études après Julien*, no colored chalk, no brilliant pastels, no copies of landscapes in oils or water-colours; but they did find careful drawings of the *Laocoon* and *Hercules*, chalk shading of the egg plant, and studies of the figure from the antique, oftentimes the result of the patient labour of many weeks. As the truest poetry and noblest music are never popular, we almost fear that this the merit of the school will render many of the best works uninteresting because unappreciated by some who stray through its galleries. We, however, believe that the studies of the living model, of flowers and fruit from nature, and the

groups of still life, possessing as they do the added charm of colour, will receive their fullest meed of praise.

In the section devoted to studies from the living model, our attention was first attracted to Miss Seymour's *Italian Boy*, but we wish to limit our remarks to the works in competition, and we notice with pleasure a decided improvement, even over the highly successful studies of the past year. Miss Parnell's exhibit good color and general refinement, and we were very glad to see that she obtained the Society's silver medal. Miss Moss and Miss Morgan have made progress, and should they continue to direct their attention to the conscientious rendering of the higher form, much may be ultimately expected from them. We only observed two anatomical studies, for which Miss Garbois obtained the medal. We would recommend the students to make frequent drawings from the skeleton, which, although perhaps less elaborate, picturesque, and interesting than some branches of art-study, are of equal or even higher importance to the art-student. Of the full-length studies in chalk from the antique, those of the *Discobolus*, Nos. 185 and 184, by Miss Parnell, Miss Arnold, and Miss Moss, &c., are worthy of attention. The athlete of old had a full share of what Mr. Matthew Arnold calls light and sweetness, to match with strength; we could wish our modern athletes to learn of him. Miss Morgan contributed a graceful drawing of the *Lizard Catcher* (187); Mr. Smith a capital study of a head from the antique. We do not know how it got strayed from those in the inner room. There was a large number of sketches from nature, in oil and water-colors; and the students will bear with us if we remind them that all such attempts are valueless which spring not from a childlike reverence for nature, and a sympathy with her ever-varying aspects and wayward moods. We congratulate Mr. Byrne—one of the assistant masters—on obtaining a special silver medal for some clever studies; and we believe, if he chose, he could have exhibited something much better. In No. 205 we recognised a careful and earnest desire to truthfully render the ordinary aspects of nature; we refer to a very successful study that may consistently be called *Woods in Spring Time*, by Mr. Walsh. 344 and 345, two sea pieces, admirable in subject. We recommend Mr. Allen, by whom they are executed, to persevere in the study which, we believe, he has entered upon, of the severe, subtle, and refined forms and proportions of the antique—a training especially necessary in order to overcome the many and great difficulties attendant upon the successful and complete treatment of shipping. Miss Morgan's sketches always please; but we would say of her also that she would do better were she to linger longer upon the detail and infinite variety of nature. Miss Parnell had some careful chestnut foliage; Miss Maffett some marine and river sketches, which give evidence of the highest ability, and are remarkable for their originality both as regards selection and treatment; and we recall with especial pleasure a tender bit of foreground by Miss Moss—bracken bending over each other, mossy stones which we should like to see reflected in still water. Miss Maffett, Miss Morgan, and Miss Webb were the medallists in this section.

We had much pleasure in examining the chalk studies in the inner room, and were very glad that Miss Moss had obtained the silver medal for her head of the dying Alexander. Miss Parnell exhibits a good but rather unfinished study of the rugged Barbarian chief; Miss Lee one of the warrior Ajax. In going round the galleries we have several times asked ourselves the question—How is it that so many of the best works are by ladies? We do not envy their success—we rejoice in it, but we should be better pleased if the young men who study in the school took their proper place at the yearly exhibition.

There were a large number of designs for various objects—ceilings, carpets, fans, plates, and table damasks, which do credit to the

ability and good taste of Miss Julian, who is much engaged in this department. Miss Brett has been successful as in other years. We think Miss Webl's designs for muslin shew evidence of the highest ability in that important and interesting branch of art design for manufacturers, and congratulate her on her success, and also Miss E. Erwin. We do not care much for any of the fans; and while thoroughly appreciating the difficulty of the more ambitious figure designs, and the amount of ability displayed in their execution, we hope the students who exhibit them will excuse us when we advise them to look on such compositions as among the happy possibilities of the future, till their judgment is matured and their perception of the beauties of form keener.

We were glad to see that Miss Magee had carried off a well-deserved medal for her pears; and Miss Wallace has obtained honourable mention. Of the still-life groups, we greatly preferred Miss Moss's for color, repose, and general effect. There was a group of fruit by Miss Magee, which we should be sorry to pass over; there is truth and delicacy in much of it, but it is the quiet tone in some of the receding parts which we chiefly admire. Our own opinion is that oils are, however, much better suited to the treatment of such subjects than water-colors.

We congratulate Miss O'Brien on again obtaining the silver medal for modelling. There are many other studies we should like to mention, but our space warns us not to linger, and in conclusion we would wish every prosperity to the School, chiefly that it may very long have the advantage of Mr. Lyne's able guidance, to whose talent and firmness we are indebted for its present success. We would ask the students to cast aside all *playing at art and dilettanteism*; and, if *life be brief and art eternal*, to fix their eyes on a definite goal, to struggle onwards towards it with threefold earnestness, simplicity and intelligence, and, ever in the light of hope their guiding star, mid many failures. If of such are her students, we have no fears for the future of the Royal Dublin Society's School of Art.

ST. BARNABAS' CHURCH, NORTH LOTTIS.

SINCE the time of its erection, over two years ago, the tower of this church has been in an unfinished state. The openings in the belfry stage were not provided with weather-boards, and consequently in time of rain the floor and walls of porch, situated in under part of tower, were damaged, and the congregation much annoyed in passing to the interior of the church. We are happy to hear that within the past month steps have been taken to remedy this defect. Welsh blue slates have been let into the mullions, and secured with galvanized fastenings. We should mention that the tower comprises three stages, and, strange to say, it was left without any means of the top being reached, as well as without any arrangement for a bell being hung in upper stage. With praise-worthy forethought, the churchwardens have taken advantage whilst the scaffolding was erected to have all these matters put to rights. Two beams of best red pine have been fixed in walls, for the reception of a bell when it could be procured. This want, too, has been supplied in good time. The worthy incumbent, the Rev. William Daunt, A.M., has presented the congregation with a fine-toned bell, from the foundry of Messrs. Thomas Sheridan and Son, Church-street, in this city. The names of the donor and the churchwardens are cast on the bell, together with the date of its erection. It is matter of regret that such portions of the Bath stone dressings to this church as are exposed to smoke and acids from the works in its vicinity, have so soon exhibited signs of decay. The usual process has been adopted, which we hope will be found effective in arresting the progress of decay.

NOMENCLATURA HIBERNICA.

To trace the origin of Irish names, purely Celtic, or arising from early colonization, domiciliation, and intermarriage, consequent of the Anglo-Norman, the English, and lastly, of the Cromwellian and Williamite settlements, would entail a lengthy and laborious research. We do not purpose doing this on the present occasion. All we propose to do is, to present to the public, and to our Irish constituency in particular, a sufficiently general classification of names, as will give them an insight into the links of our history, made up, as it is, of an incommensurable assemblage of individuals of different races, classes, and creeds, but gradually assimilating, we hope, into one whole and intact body of Irishmen, racy of their now adopted country and native soil. The four primitive or primal families of Ireland, who constituted the regal or supreme houses of the country, and who represented her kingly monarchy, were:—

The O'Neils of Ulster
The O'Melaghins of Leinster
The O'Briens of Munster
The O'Connors of Connaught.

In thus classifying them provincially, we may add that these families were known locally as of Tyrone, Meath, Thomond; and the latter, the O'Connors, only in connection with their province. Meath, in the early subdivision of the country, was accounted a province in itself, or at least a fifth part of the country, regally speaking.

There was a second class of provincial chieftains, many of whose ancestors sat upon the throne of Ireland, who were hardly inferior to the primal branches.

The O'Donnells of Tyreconnell
The MacMorroughs of Leinster
The O'Heochys of Ulster
The O'Flahertys of Connaught
The O'Connors of Kerry
The O'Rourkes of Breffny
The O'Carrolls of Oirgeal
The MacCarthys of Desmond.

A third class of Irish families, powerful chiefs in their time, claiming kindred rights by name and blood, and holding very large possessions in three at least of the provinces, were:—

O'Briens of Arra
O'Sullivan (More) in Munster
O'Reillys of Cavan
MacGuire of Fermanagh
MacMahons of Monaghan
O'Carrolls of Ely
O'Donoghues (More) in Munster
MacGeoghegans of Moycashel
O'Byrnes of Wicklow
O'Moores of Leix
O'Tooles of Imayle
MacNamaras of Clancolea
O'Doghertys of Innishowen
MacCoghlins of Delvin
O'Kennedys of Ormond
O'Neils of Claneboys
MacDermotts of Moyluirg
O'Kellys of Iymaine
O'Dempseys of Clanmalier
O'Ferrals of Annally
Fitzpatricks of Ossory
O'Neils of the Fews
O'Phelans of Decies
O'Connors of Offally.

It will be seen that all those houses are still represented in Ireland, and though the lineal descent of some are disputed, we may take it for granted, that, in humble life as well as in exalted situations, but few of them are ashamed of the names they bear. There are, however, collateral branches, or a fourth class of the above families, many of whose names have not been retained with equal pride, and who, as time wore on, either Anglicized, Frenchified, or, if we may coin a name, so *foreignified* the names their fathers bore as to be scarcely traceable or determinable at the present day.

Despite, however, of many modern changes, the fourth class are purely native in origin, and among the principal may be reckoned the following O's and Mac's. It is a contested point which should have the precedence. Names with both prefixes have been an

honour and a shame to their country, and as for the matter of euphony, there is as much in O'Looney as O'Donoghue, or MacGilly Cuddy as MacCarthy.

O'Donovan (More)	O'Daly	O'Donnelly
O'Sullivan (Beare)	O'Connell	O'Halloran
O'Flanagan	O'Driscoll	O'Dowel
O'Loghlen	O'Regan	O'Mara
O'Fegan	O'Hara	O'Hehir
O'Connor	O'Naghten	O'Doran
O'Madden	O'Hinan	O'Brady
O'Quin	O'Grady	O'Murphy
O'Moran	O'Linn	O'Boylan
O'Haly	O'Roney	O'Dunn
O'Crowley	O'Flinn	O'Leary
O'Connolly	O'Brennan	O'Cassidy
O'Meagher	O'Dowley	O'Hea
O'Gorman	O'Gorman	O'Kenny
O'Tierney	O'Grogan	O'Nolan
O'Callan	O'Mahony	O'Fallan
O'Callaghan	O'Loneragan	O'Dea
O'Beirne	O'Dolan	O'Brallaghan
O'Dorrigan	O'Howrigan	O'Cassidy
O'Geanan	O'Falvey	O'Curran
O'Laverty	O'Galvey	O'Nagaran
O'Rafferty	O'Cullen	O'Kyan
O'Loy	O'Kean	O'Coryn
O'Hanlon	O'Ryan	O'Keefe
O'Neylan	O'Scanlon	O'Casey
O'Lally	O'Kelly	O'Mally
O'Tracy	O'Coyle	O'Gallagher
O'Heaf	O'Dornyn	O'Heyn
O'Boyle	O'Dowd	O'Molloy
O'Coney	O'Brie	O'Money
O'Fogarty	O'Tully	O'Lalor
O'Scullly	O'Hogan	O'Donegan
O'Brogan	O'Cooley	O'Degan
O'Doyle	O'Duffy	O'Hagan
O'Duhig	O'Gara	O'Curry

And several others.

The names with the prefix of Mac are comparatively small compared with the former, but amongst the most distinguished and generally known, the following may be specified:—

MacAuley	MacGennis	MacBrenan
MacGeoghegan	MacGilly Cuddy	MacManus
MacMoylan	MacClosky	MacHale
MacLoughlin	MacEgan	MacCartan
MacNamara	MacCurtin	MacDonagh
MacKenna	MacCoghlan	MacDonnell
MacKeogh	MacIntyre	MacDermott
MacSwiney	MacMahon	MacCarthy
MacMorrough	MacNeil	MacGee
MacNally	MacOwen	MacGuire
MacGan	MacHugh	MacConnell
MacMeehan	MacCormac	MacCostigan
MacCorry	MacGowen	MacCann
MacGloin	MacFibis	MacCool

And many more.

In comparing the names, it will be noticed that many of them are alike, except in the matter of the prefix. The prefix of Mac has become more diffused in modern times, particularly with the Scotch element, in and out of Ireland.

There is a great similarity at the present day between the Scotch Mac and the Irish Mac. The names, we would say, are identical, notwithstanding the slight change in the spelling. We do not produce a long list of Scotch names in present use, as they can easily be had, and those more generally known will occur to most men's memory with a little thought.

There are, however, many essentially Irish names of long standing and in use at the present day that have no prefix, though not correct without it. There are others of centuries' standing indigenous of the country, and with a Celtic ring in them, such as the Burkes, Blakes, Walshes, Dromgools, Cassidys, Dempseys, Wards, Conroys, Roes, Butlers, Graces, Conways, Comerfords, Roches, Tuities, Condons, Conlans, Nugents, Ruddys, Taaffes, Lawlesses, &c.

On looking closer into the history of these latter class of names, the majority of them are traceable to the Anglo-Norman, Strongbowian, and subsequent migrations, as we will hereafter shew.

The founders of the great Anglo-Norman houses in Ireland, dating from Strongbow's invasion, are:—The Fitzgeralds, De Burghs, De Courcys, De Cogans, De Lacys, De Clares, De Boteillers (Butlers), De Prendergasts, the extinct De Londres, De Berminghams, Fitzstephens, Fitzhenrys, and Montmorencys.

Cambrensis designates the Earl of Strongbow, Fitzstephen, Henry of Montmorency, and Fitzgerald, the four great pillars of Norman Ireland.

In the wake of the great Palatines or Anglo-Norman Barons, there came also into Ireland a very large following of inferior lords and knights, bearing names that were afterwards famous in our annals, and are existing still in connection with large landed possessions.

The representatives of the above-named Anglo-Norman families are not confined to single houses, but in some instances to two, three, or four branches or houses. The De Cogans, once a very high and distinguished family, we believe, are for several years extinct. The name, however, exists as Cogan, and is borne by many hundreds of Irishmen at home and abroad.

A second class of the Anglo-Norman element combined with the Strongbowian, which is much the same, is made up of names who held high command in Strongbow's army, or who came in his train. A great many of these were descended from powerful barons holding property and sway both in England and Normandy. Some of them, who were entrusted with power and command by Strongbow, were constituted barons within the jurisdiction of the Anglo-Norman princes in this country, chiefly confined to what is known as the English Pale. Many of the successors of these houses were elevated to the peerage, and are to be seen in the Irish peerage and baronetage of this nation. "More Irish than the Irish themselves" has been written of some of these families with a great degree of truth; and truly they are now, by long custom and location, native in thought and feeling. Norman or Strongbowian once, they are now at last part of ourselves—one in name and one in fame. Among this Anglo-Norman element we may instance the following:—

D'Alton	De Talbot	De Barry
Le Proe	De Verdon	De Val
De Tyrrell	De la Roche	De L'Estrange
De Geneville	De Comerford	De Grandison
De Worcester	De Netterville	De Dillon
De Valoignes	De Hereford	De Tuite
De Ledewich	De St. Leger	De St. Aubin
St. Laurence	De St. Martin	De Cusack
De Bohan	De Hastings	De Petyt
De Plunket	De Nugent	De Condon
De Rosseter	De Cantwell	De Bruin (Brown)
De Flipo	FitzEustace	Fitzmartin
De Nangle	FitzGriffin	Le Cheevres
De La Hide	De La Hayes	De La Mar
De Fforstall	FitzSimon	De Mandeville
De Purcell	D'Esmonde	De Tobyn
De Grace	De Barrett	De Bovard
De Stanton	De Riddlesford	De La Ware
De Quiney	De Roussell	Le Dullard
De Peche	L'Archlekin	De Bluet
De Comyn	De Long	L'Archlembaud
De Peppard	D'Exester	De Brasse
D'Everarde	De Pamelay	De Clahul
Furlong	Chamberlayne	Whitty
Hope	Hackett	Hore
Synott	Shortal	Laffan
Golding	Nott	Walsh
Domdull		

By way of supplement, another short list of noble and distinguished families may be added to the foregoing, who came into Ireland in the reign of John, Henry III., and down to the third Edward. Most of the names in this list are still represented in Ireland in high and humble life:—

Analay	Aylmer	Aylward
Sarsfield	Barnwell	D'Arcy
Wogan	Savage	Denn
Devereux	Bellew	Burley
De Bathe	Travers	Malpas
Lamport	Tancred	More
Wyckham	Bellinge	Flood
Lawless	Taffe	Hollywood
Fyan	Bagott	Archer
Beresford	Wellersley	Fitzwilliam
Le Brett	Caddell	Wolverston
Preston	Blanchville	Joyce
Effrench	Font	Scurlock
Sutton	Young	White
Mansell	Segrave	Lombard
Troy	Arundel	Mansfield
Coppinger	Wyse	Finglas
Owgan	Blackney	Taylor
Le Bald	Blount, &c.	

From the reign of the third Edward to the commencement of Charles the First's reign. we have further extensive additions of names. Many of these were the younger sons of ancient English and Scotch houses. It is now a matter of history, and it can be no offence to say that many of these families—in fact, we may say all of them—received grants of lands in this country out of the forfeited estates before and after the attainder of the Earls of Tyrone and Desmond, besides the confiscated estates of the Church. Among them, however, will be found many distinguished names, viewed even from a strictly national point of view. The reader, in glancing over the list we subjoin, will discover that there are many of them represented at present in Ireland by members of both the Catholic, Protestant, and Dissenting Communities:—

Brabazon	Barrington	Skeffington
Loftus	Clothworthy	Agard
Chichester	Saunderson	Herbert
Hervey	Venables	Wingfield
Willoughby	Blount	Bingham
Bolton	Ffoliot	Ridgeway
Rawdon	Allen	Stuart
Hyde	MacDonald	King
Browne	Denny	Hamilton
Barclay	Conyngham	Bushe
Conway	Hume	Montgomery
Brownlow	Rice	St. John
St. George	Therry	Lambert
Calvert	Telford	Heybourne
Blennerhasset	Brownrigg	Trevor
Colclough	Beresford	MacNeill
MacNaughten	Vaughan	Temple
Hungerford	Ponsonby	MacLelan
Colquhoun	Moore	Waldron
Wallop	Cotter	Rea
Evans	Butler	Sandford
Standish	Sandford	Villiers
Grey	Wirrall	Leigh
Archdall	Pollard	Kingsmill
Eyre	Monks	Lumley
Clarke	Carey	Trant
Crofton	Brooke	Lloyd
Mapother	Southwell	Filton
Stackpole	Spencer	Georges
Murray	Newcomen	Fenton
Clifford	Kerr	Cope
Pigott	Winter	St. Clair
Caulfield	Harpole	Colley
Bower	Hetherington	Morris
Cosby	Westrop	Crosbie
Hill	Johnston	Piers
Mervyn	Boyle	Babington
Crafts	Skiddy	Perceval

This list might be extended, had we time to pursue the investigation. What we have enumerated will be sufficient, we dare say, to satisfy all moderate desires, while supplying a basis for other more studious minds who wish to construct a more elaborate and exhaustive compilation of Irish and Anglo-Norman names.

As a sequel to the foregoing lists of native and foreign names, our nomenclature would be somewhat imperfect or incomplete did we not give a summary of the names borne by the soldiers, followers, and nobility of Cromwell and William the Third, with subsequent additions. There are many of these names, no doubt, which will sound whimsical to Irish ears, but custom and contact have made most of them familiar sounds in our ears of late years in Ireland. Though the majority of them are modern, there are not a few of them which have already become historic. These names, though derived from a source which needs but little explanation, are perhaps as appropriate to some extent for family name as our more ancient ones. Derived from objects in nature, trade and art, birds, fishes, beasts, the elements, trees, shrubs, plants, flowers, or of productions in the sea, on the land, or in the air, the last class of the names we submit are of a most motley kind.

ORNITHOLOGICAL.

Nightingales	Cranes	Finches
Peacocks	Woodcocks	Quails
Hawks	Rails	Snipes
Swallows	Pies	Daws
Robins	Sparrows	Wrens
Pidgeons	Parrots	Craiks
Kites	Gulls	Drakes
Eagles	Ravens	Crows

Owls	Moorcocks	Batts
Cocks	Hens	Doves, &c.
PISCATORIAL.		
Roaches	Salmons	Codds
Pikes	Trouts	Carp
Sturgeons	Herrings	Eels
Place	Soles	Tench
Breams	Bretts	Carp
Congors	Hakes	Crabbs
Sprats	Rays	Perches
Cockles	Winkles	Mussels, &c.
MAMMALIA.		
Bulls	Bears	Wolves
Lyons	Seals	Panthers
Rams	Roebucks	Bullocks
Piggs	Hoggs	Bucks
Badgers	Hares	Levretts
Lambs	Does	Colts
Mares	Hunters	Steeds
Camels	Foxes	Deers
Hares	Rabbits	Moles, &c.
HANDICRAFTS.		
Smiths	Naylors	Braziers
Carpenters	Joiners	Wrights
Taylor	Barbers	Turners
Masons	Butchers	Trimmers
Saddlers	Carvers	Tanners
Weavers	Bakers	Brewers
Gilders	Chandlers	Stainers
Painters	Coopers	Cutlers, &c.
ECCLESIASTICAL.		
Churches	Pews	Towers
Bishops	Deacons	Parsons
Vicars	Proctors	Deans
Priests	Monks	Nuns
Chappels	Sextons	Vanes, &c.
COLOUR.		
Blacks	Whites	Browns
Grays	Fairs	Blonds
Greens	Ruddys	Hazels, &c.
TREES, SHRUBS, FLOWERS.		
Ashes	Birches	Brambles
Twiggs	Barks	Elders
Thorns	Olives	Beeches
Heaths	Brooms	Pears
Roses	Briers	Cherrys
Lemons	Tulps	Primroses
Hollys	Ivys	Hawthorns
AGRICULTURAL.		
Orchards	Meadows	Groves
Plowmen	Reapers	Stewards
Hedges	Bushes	Parks
Gates	Styles	Dykes
Stacks	Ridges	Furrows
Burrows	Warrens	Ponds
Gardiners	Forresters	Farmers
Hays	Clovers	Beans

We could have carried the classification much further and made the arrangement more perfect had we sufficient time to devote to the subject. The remainder of the names we must perforce toss them into a mixed group under the heading of

SUNDRIES.

Biggs	Littles	Youngs
Olds	Greatmen	Richmen
Goodmen	Longmen	Strongmen
Little	Chapmen	Woodmen
Squires	Constables	Knights
Cramps	Sergeants	Leaders
Torrents	Floods	Stones
Moons	Starrs	Frosts
Lively	Prim	Gay
Winters	Springs	Summers
Bolds	Champions	Bowmen
Harpers	Pipers	Fiddlers
Placemen	Riders	Supples
Walkers	Carters	Servants
Princes	Judges	Lords
Hoppers	Skippers	Dancers
Springers	Bullys	Divers
Swimmers	Bridgemen	Jumpers
Coffins	Biers	Graves
Caves	Deaths	Darts
Judkins	Rankins	Hoskinsons
Jenkins	Rudkins	Notts
Hodges	Madges	Potts
Potts	Alcocks	Traffords
Murdocks	Newells	Howells
Stopfords	Crawleys	Haycocks
Stratfords	Godkins	Cooks
Ludlows	Cromwells	Verners
Bayleys	Higginbottoms	Rowleys
Graydons	Sirrs	Jones
Snows	Hempenstalls	Jobsons
Swans	Johnstons	Leesons

Hobsons	Willingtons	Langleys
Griersons	Nelsons	Gaysons
Lewins	Billingtons	Thompsons
Gibsons	Fownes	Monsons
Downs	Bradleys	Ladleys
Radleys		

And a great many others, but we cannot extend the list further.

New and strangely-sounding names are arising in these kingdoms year after year, attributable, in a great measure, to illegitimacy and births in our workhouses, prisons, and hospitals. The medical officers in our poorhouses and the chaplains are cognizant of these facts; and the latter are often called upon, on the part of the mothers of these children so born, to baptize them, not after their putative fathers' names, but in the name of some object or incident known to them in their respective localities. Thus, we have many new names made up of parish items or atoms, the production of whimsical and wayward fancies. Added to this, there are always changes taking place, owing to a variety of causes—by a mixture of the foreign element, internarrriages, a dropping of certain letters from a particular name, or the adding of letters, and in some cases, by nearly an entire transposition of the original word. Even purely Irish names are spelt differently at the present day from what they were two centuries ago. Some are Anglicized* or Frenchified, as we said before; others are Latinized, Germanized, Italianized, and even Americanized. The Irish Murphy grows into Murphie in England, and Morphie in New York; and a great majority of the poor Irish element in the cities and towns of England and Scotland, not only have dropped the prefix of O and Mac with which their names should be spelt, but purposely misspell their names, thinking that there will be less prejudice against them in obtaining employment.

The newspaper reporters in the police and law courts of England and Scotland usually misspell Irish names through want of knowledge; and the clerks, foremen, and time-keepers, in large factories and public works in England, write down the Irish workmen's names from the sound that catches their ears. The poor a labourer often does not care, not knowing how to read or write, and so long as he has work and is paid his wages, he does not bother his head whether his name is rightly spelt or not. We often examined some of these labourers' or workmen's time returns in England, and found the names of Irishmen spelt in a manner that would puzzle an able Irish philologist to ascertain whether it represented one of his own countrymen or a native of Terra del Fuego.

One word to all whom it may concern. Don't be ashamed of the name you bear—the name that your father morally bequeathed to you. Whether you can trace a long ancestry or not, stick fast by your name. Do not be scared because some empty-headed folk may hint such and such a name is "a vulgar one." A man may be essentially vulgar in his nature, but the most, so-called, plebeian name can be ennobled by him who elevates himself by the honest application of his talents, educates and trains his children to do the same, while acting throughout all his business transactions justly by his neighbours.

Cincinnatus, at the plough, chosen as a dictator by the Roman senate, left the farm on two occasions during his life, conquered for his country, but declining the honours of state, went back to his farm again. The Roman ploughman victor ennobled his name and his native city, while not despising his occupation, and man's latest posterity will not forget him.

DUBLINIENSIS.

* By an Act of 5 Edward IV., A.D. 1465, the Irish dwelling within the Pale were ordered to go apparelled like the English, and wear their beards after their manner, swear allegiance, and take an English surname. To provide such numbers with names, the names of towns, rivers, and places, and those connected with the arts and sciences, and the qualities of the mind and body, were adopted. Of course many chose what pleased them best, when allowed to do so.

THE ABATTOIR AND OTHER QUESTIONS.

WE have before us as we write the City Engineer's report on the construction of abattoirs in connection with the new Cattle Market, North Circular-road. This document is dated the 24th August, 1867.

A word before giving some extracts from this report, which convicts the Corporation of playing fast and loose with the interests of the city, comparing their past avowals with their present performances. What has the Corporation done since 1867 towards carrying out its intentions? Has our city witnessed the erection of a new and proper abattoir, capable of "affording accommodation for the slaughtering of at least 400 head of cattle and 500 pigs weekly?"

A report has been read last week from the Public Health Committee for confirmation of a licence to slaughter cattle at 12 Marlborough-place. We ask the Public Health Committee *in globo*, and the citizens generally, is the granting of this licence for a slaughter-house in a thickly-populated and not over-sanitary neighbourhood, conducive to the health of Dublin?

At one of the late meetings of the Town Council, Alderman MacSwiney said—"the proposed slaughter-house is in the centre of a densely-populated district. In the Marlborough-street Schools there are 1,400 children in daily attendance, 200 teachers, and a large staff, comprising 80 employes. Then there is the Roman Catholic Cathedral of the city in the street, besides other public institutions. He held letters from several influential representative inhabitants objecting to the proposal; and he begged of the Corporation to pause before sanctioning what would be detrimental to the health of the citizens, in the heart of the city, when a more eligible site could be procured for the purpose." Despite, however, of protest, if the inhabitants do not unanimously protest against the nuisance, this slaughter-house will be established in their midst, and diseased and dying cattle will be smuggled in here and pole-axed with such dispatch that no medical or other officer of health will be able to "smell a rat."

In his report, the City Engineer said at the time he wrote—"There are 106 slaughter-houses in Dublin, the greater number being of the worst and most disgusting description, and located in confined and unwholesome places." The Corporation are now about increasing the very evil that they formerly deprecated through the mouth of their engineer.

Respecting the abattoirs of London, Glasgow, and Edinburgh, we can bear testimony to their usefulness and the practical manner in which they were managed when we last saw them. Those of Glasgow and Edinburgh we have visited still later, particularly the abattoir in Edinburgh, near Fountains Bridge. Outside in architectural feature, and inside in arrangements for sanitary slaughtering, the Edinburgh abattoir is a first-class specimen of its kind.

We subjoin below two of the clauses of acts directly bearing upon this slaughter-house question; and we would particularly ask of our readers to peruse the following excerpts from the City Engineer's report:—

"In Liverpool the abattoirs are the property of a private company, formed in the year 1838, and are situated in a densely-populated district. They form a continuous line of buildings, about 780 feet long, with two detached buildings, in one of which pigs exclusively are killed. The capital embarked by the company originally was £17,538 13s. 4d., since which they have expended £3,348, making the total outlay £20,886; and on this a very large advance is now paid to the shareholders.

"There are only three slaughter-houses erected up to the present by the Corporation of London at the new cattle market at Islington. They are very complete, so far as they go, but they have not proved a success, from the fact of the Corporation not having power to compel the butchers to slaughter in them.

"In Edinburgh there is but one abattoir, in which all cattle, sheep, &c., required for the city must be slaughtered. This is a very fine and well-managed establishment, and was erected by the

corporation in the year 1850, at a cost of £22,167. "In Glasgow the corporation have three abattoirs, and all the cattle killed within the city must be slaughtered in them.

"In any design for an abattoir for the city of Dublin provision should be made for affording accommodation for the slaughtering of at least 400 head of cattle, 2,000 sheep, and 500 pigs weekly."

12 and 13 Vict., cap. 97, s. 86—"And be it enacted that it shall be lawful for the said Lord Mayor, aldermen, and burgesses to provide such slaughter-houses as shall from time to time be sufficient for the slaughtering of cattle for the supply of the said borough and the neighbourhood thereof." Sec. 89—"And be it enacted that it shall be lawful for the Lord Mayor, aldermen, and burgesses to demand from any person slaughtering cattle in any slaughtering-house belonging to them such charges as are in schedule (D) to this act annexed."

"27 and 28 Vict., cap. 305, sec. 12—"So soon as the corporation shall, pursuant to the provisions of the first-recited act, have provided a slaughter-house or slaughter-houses for the slaughtering of cattle for the supply of the borough of Dublin and the neighbourhood thereof, it shall be lawful for the Corporation to purchase by agreement or compulsion from the owner or owners of any then existing licence to use a slaughter-house, such licence, and all right to use such slaughter-house pursuant to any such licence, and to pay the purchase money for any such purpose out of the Improvement Fund of the said borough."

Need we write further in the face of the preceding evidence? It only remains for us, in performance of a public duty, to apprise the Castle Adviser and the Under-Secretary for Ireland, that they have also a duty to perform. The Lord Lieutenant is empowered, in virtue of the late Sanitary Acts, to move in the interests of the citizens of Dublin if the municipal authorities will not perform the duties that devolve upon them. If action must be taken it had better be taken in time. It is not one evil, but half a dozen, that call for discussion and remedy at this moment. Matters in the Dublin Corporation are going so completely to the dogs that it is immaterial which question is opened first. Whatever ulcer is touched, the probing of one must inevitably lead to the exposure of all.

IS IT TRUE?

Is it true that a prominent and long-standing member of the Corporation received a very large percentage commission for his services in managing an order connected with the late Waterworks of Dublin?

Is it true that numerous orders have been given in the name of the Town Council during the last two years, the particulars of which were unknown to the general members until they were executed and about being paid for?

Is it true that the Corporation are not able to pay the poor scavengers more than 13s. per week, the Borough Engineer £700 per year, and that they have agreed to pay out of their own pockets the salary of a second Borough Engineer, whom they are about to appoint along with a superintendent of scavenging?

Is it true that a few mud-gabbers or barges are about to be built, to be moored under the arches of Carlisle Bridge, to receive the sewage of the streets, which is to be floated out to the bar and deposited in "sweet Dublin Bay"?

Is it true that Mr. Bazalgette regrets that he had anything to do with the Main Drainage, and that on the occasion of his last visit to Dublin, he advised the appointment of a Consulting Engineer?

Is it true that the Corporation have compromised with the Gas Company in the matter of their threatened law-suit?

Is it true that there is sleeping accommodation in the City Hall for overworked officials and others whose heavy duties entail upon them late hours?

Is it true that there is a lightning conductor, a telegraphic wire, a pneumatic tube, and a "poor-box," in connection with the departments in the City Hall?

Is it true that Mr. French, T.C., is a great stumbling-block to some members, who are bent on carrying out their own little games, and that "with all his faults," it is better to have him in than out?

Is it true that a town clock is about to be erected over the City Hall, but that no respectable Irish architect would consent to commit a sacrilege by designing a tower to be stuck upon Cooley's masterpiece?

Is it true that the Town Clerk is preparing a work for publication, to be entitled "The Records of the Reformed Corporation," made up mostly of the history of the streets of Dublin, with an "Introductory Essay on the Literature of Scavenging"?

Is it true that Mr. McAnaspie made some practical proposals for certain works, and that "they are being considered"?

Is it true that the Corporation are negotiating for another new loan, and that they have offered as a security this generation and the next?

Is it true that the parties about to advance this loan have stipulated for a third security, viz.—posterity or unlimited taxation in perpetuity?

Is it true that "The Dublin Bridges and Quay Walls Bill" was hatched in the brain of an Irish M.P., and that, more than one Irish M.P. journalist and member of the Town Council were in the swim, not for their own dear sake alone, but for the benefit of their private friends the lawyers?

ST. PAUL'S CATHEDRAL, LONDON.

WE (*Athenæum*) learn with some surprise that the committee entrusted with the decoration of St. Paul's has ordered from Munich a further supply of stained glass windows, to be placed in the metropolitan cathedral. While we regret that it has not been thought proper to entrust commissions for a work which might be national to English artists, we consider the bare fact of Bavarians being so employed of little importance, although we are convinced that in this island are many producers of stained glass equal in every respect to those of Munich. What we are bound to protest against is, the employment of works designed on the false principle of making pictures to be viewed by transmitted light, as painted windows must be viewed. There is no reason why good drawing should not appear in windows which are enriched with decorations intended to be seen by transmitted light. This is not a question between architectural styles, Gothic, "Italian," or Classic, as has unfortunately been asserted, but one which concerns the logical bases of all design. Painting on the false principles adapted for Munich glass results in æsthetic failures. The colouring of Munich glass, whenever it is not garish and crude, is invariably thin and weak—a natural consequence of the attempt to do that which the laws of light forbid. Munich glass windows are designed to succeed, by means of *imitations* of objects, architectural or animated, as they are seen in reflected light; they are works of *imitative* art, and therefore stand in a very low category. The spirit, the sentiment, the dignity, moral purport, and pathos of fine art, are to be found in stained glass which follows the logical principles of painting *in* transmitted light freely and fully; while splendour of colour, the peculiar glory of true art in glass, is to be obtained at its highest only in windows where gorgeous hues are given to transmitted light. These gorgeous hues are incompatible with the abundance of shading and that extreme development of modelling which are required to produce imitative effects. If the committee want pictures proper, let them employ artists, from Germany or elsewhere, to paint the walls of the cathedral. We are bound to warn the subscribers to these windows that their well-meant contributions will result in disappointment, a sure consequence of pictures



MONUMENTAL CROSS *designed by J. J. McCarthy & Son Sculptors*

GLASNEVIN DUBLIN



which, while they imitate men and buildings, have the light shining through them.

The proposal for setting back or removing altogether the large iron railings which enclose the west end of the Cathedral seems to have gone out of mind of late. The railings themselves are interesting, being, it is said, the last important production of the Sussex ironworks, and, as such, deserve care; but meanwhile the roadway at the west end is inconveniently restricted in width. We think it would injure the architectural aspect of the Cathedral to remove these railings to within a comparatively short distance of the western doors of the church, as has been proposed; still more would it be, in our opinion, objectionable to take the grille away altogether; nor is it needful to carry out either of these plans. The whole of the space which might thus be obtained for the road is not required, and would be of little value unless the road on the south side of St. Paul's were widened commensurately, which could not be done except by pulling down the huge and lofty buildings which abut on the footway on that side. Yet it is both desirable and quite practicable to set back the rails on the west of the church sufficiently to give ample space for the traffic. We do not think such an extension of the space for this purpose would materially, if at all, injure the architectural effect and dignity of Wren's design at its finest point.

BOOKS RECEIVED.

The New Law Courts. A Reply to Portions of Mr. Street's Pamphlet. By E. M. Barry, R.A. London: MacMillan and Co.

A NOTICE of this pamphlet will appear in our next issue. Until then we must reserve some other notices which, though not immediately belonging to the controversy, are germane to it.

The Dublin Bridges and Quay Walls Bill. Casey and Clay, Solicitors. Dublin: Joseph Dollard, Printer, Dame-street.

WE have received a copy of this intended Bill, the mere announcement of which has already roused up a storm of opposition which is nowise insignificant. Before definitely pronouncing on the merits or demerits of the Bill, we will again look more closely into its clauses and see if we can by next publication detect any virtue or extract any good from it in its entirety, as would entitle it to even qualified condemnation.

"Speeches on Temperance," "Marriage with a Deceased Wife's Sister," together with some lucubrations by a Literary Lunatic, have come to hand.

THE ROYAL IRISH ACADEMY.

At the meeting on Monday evening, the 8th ult., Prof. HENNESSY, F.R.S., in the chair,

Mr. C. R. Tichborne, F.C.S., read a paper "On the Action of Heat upon Solutions of Hydrated Salts." The author used, for the purpose of examining the dissociation of water of hydration, such salts as presented a change of colour when passing from the hydrated to the anhydrous state. He had experimented on those of cobalt, copper, and nickel. Thus, to take the familiar instance of cobalt—the anhydrous salts of which are blue, whilst the hydrated are pink,—no amount of boiling will convert a pink solution of cobalt into a blue one, except it is extremely concentrated, but in every case such salts were all changed into the anhydrous condition on boiling under pressure, when the "thermanalytic" point, as the author called it, was reached. The pink cobalt salts were converted into the blue ones, copper into yellowish brown, and in the case of chloride, nearly a black solution. Some caution is required in the performance of these experiments, owing to the danger of an explosion. An

important observation made in connection with these experiments, was the fact that dilution acted differently in the cases of chromatic change produced by dehydration, and those producing basic results. It is exactly the reverse. The author had pointed out in a previous report that chromatic changes resulting from the formation of basic salts by dissociation (*i. e.*, chromic or ferric salts) is influenced by dilution lowering the thermanalytic point, or the increase in volume of water will assist the dissociation. But in the second class, the increase in the volume of water raises the thermanalytic point and retards the dissociation of water of hydration.

Prof. Sullivan complimented the author upon the importance of this investigation and this line of research generally.

Prof. Hennessy, F.R.S., &c., then read "Some Notes of Observations of Phenomena in Optical Meteorology." These were descriptions of actual observations, particularly of one where a double rainbow was accompanied by what appeared to be vertical bands of light at right angles to the horizon.

CIVIC WANTS.

WANTED, on trial, a competent officer,
Able and willing to do what he's told;
Wanted, a Clerk, who is not a novice, Sir,
Active, but neither too young nor too old.
Wanted, also, a smart Borough Engineer,
To stop up the leaks and the gaps that are made,
And fill up his time with other works hinging here,
To civic departments long retrograde.

WANTED, in haste, a Gutter Commissioner,
Who knows how to oversee, scavenge, and swim;
Either a North or a South side parishioner,
A model man, civil and supple and slim.
Canvass of members strictly prohibited.
No foregone conclusions will be entertained.
The Town Council have ever exhibited
The character which they have always maintained.

WANTED, some metal—not pavement, but capital—
A grant or a loan, for which we will pledge
The taxes that flow to us with a rapid will,
By writs and instruments with a sharp edge.
Wanted, a Bully, an Organ and Editor,
Fearless and quick at abuse and defence;
Wanted, some Bank to act as our Creditor,
On which we can draw and—"damn the expense."
CIVIS.

THE DEVITT MEMORIAL CROSS.

To the already fine specimens of monumental art placed in Glasnevin Cemetery there has recently been added one, a sketch of which we have considered worthy to present our readers with in this issue. It is a Celtic Cross, to the memory of our late fellow-citizen, Alderman Richard Devitt, J.P. It has been executed in limestone, from the quarries at Ballyduff, near Tullamore. The blocks are perfect in quality, and remarkably beautiful in appearance. Although the sculpture on this cross is in many parts exceedingly delicate, the stone of which it is composed is of such a durable nature that decay is not to be apprehended. Upon the front, enclosed within the wheel, is the Crucifixion; at the back, the Sacred Heart and Crown of Thorns. From a base covering a considerable area rise the plinth and pedestal; upon the latter are four panels with rope mouldings; above rises the shaft of the cross, and here the cunning pencil of the draftsman and the skilful chisel of the sculptor have expended all the resources of their respective arts. Designs of the utmost intricacy, adapted from examples found in the "Book of Kells," and in O'Neill's work on "Irish Crosses," fill each compartment in infinite variety. Each compartment is in itself a study in Irish art, and in sharpness and clearness the execution of every part does great honour and credit to those who have turned out such workmanship. To Messrs. Fitzpatrick and Molloy the cemetery owe many excellent specimens of monumental art, but none excel the Devitt Cross; it is as yet their *chef-d'œuvre*. The striking and imposing appearance which this monument presents may be gathered from a detail

of its dimensions. From the base to the apex is 14 ft. 4 in.; the height of cross with shaft, 10 ft. 2 in.; the inscription stone is 3½ ft. wide at base, and 2 ft. 10 in. high; the shaft at base, 1 ft. 4½ in. by 1 ft. 2½ in., diminishing to 1 ft. square at top, the extreme width of which is 3 ft. 9½ in.; the outer diameter of the circular ring is 3 ft. 1 in.

THE CLUB-HOUSE GREEN, KINGSTOWN.

WE understand that the Board of Works and Irish Light Commissioners have resolved not to absorb the pleasant green plateau near the Royal Irish Yacht Club for the erection of storehouses. We believe the abandonment of the project is owing to some representations which were made to his Excellency the Lord Lieutenant by influential residents, and that he, in consequence, interested himself in the preservation of the Club-house Green.

POSTAL TELEGRAPH CARDS.

ANOTHER improvement for facilitating messages comes into operation on and after the 5th of this month, which will, no doubt, be of great advantage to the public at large. Stamped telegraph message cards will be issued at the rate of one shilling each, for the use of persons who either cannot, or do not desire to, send messages to the telegraph office. These cards are arranged in precisely the same way as the forms in use at the ordinary offices, and include spaces for twenty words. They are to be filled up by the sender and deposited in any post-office, when they will be forwarded, free of charge, at the next clearance of the box. The shilling stamp on the card covers the cost of such a message within the United Kingdom (the Scilly, Orkney, and Shetland Islands excepted), the Channel Islands, and the Isle of Man, including free delivery of the same within the limit of one mile of the Terminal Telegraph-office, or of the town postal delivery of that office, in cases where that limit extends beyond one mile. Should this limit be exceeded, or any special mode of transmission required, a charge will be made on the person to whom the message is addressed. A payment of 3d. for every additional five words or fraction of five words will also be demanded from the addressee, should the total number exceed twenty. The postal telegraph card is of precisely the same size as the ordinary half-penny post-card; and, besides the arrangements above specified, contains a space for the insertion of the date and hour of posting. A person depositing one of these cards in a box will be able to ascertain from the table of collections on or over the box, at what hour his telegram is likely to reach its destination. Allowance must, of course, be made for the transmission between office and office; and it must also be borne in mind that most of the telegraph offices in the kingdom are closed between eight p.m. and eight a.m. The Post-office authorities have issued an official book giving, together with other particulars, the names of all the telegraph offices in the United Kingdom, and a statement of the hours during which they are open. The book has been prepared for the guidance of clerks in telegraph offices; but will probably be issued at an early date for sale to the public. The first part contains the names of postal telegraph offices, together with neighbouring money-order offices, stating their distance from each other. The second part adds the names of railway stations and other places where telegraphic business is transacted on behalf of the Postmaster-General. In this Code Book the names of more than 5,000 telegraph offices are given, with the hours of attendance at each on Sundays and week days. This manual will be found to be most useful to the general public, as well as those who are connected with the telegraphic department.

THE ROYAL HISTORICAL AND ARCHÆOLOGICAL ASSOCIATION OF IRELAND.

THE annual meeting of the above Association was held at Butler House, Kilkenny, on the 17th ult. We give a slightly abridged account of the proceedings, which were very interesting. We hope, in the course of a few years, to see this most deserving Association occupying the position it deserves, and that it will obtain an accession of useful working members. There are hundreds of our countrymen whose tastes ought to lead them to seek honourable membership, and thereby add to their own and their country's honour.

The Mayor presided at the last meeting, and the Rev. James Graves (Hon. Sec.) read the report of the committee for the past year as follows:—

Your committee, in presenting their twenty-second annual report, are glad to say they are not obliged to 'bate one jot of confidence in the prosperity of the Archæological Association of Ireland. No special efforts have been made to enlist members, or push into notice its objects and acts; members have, of course, fallen away or been removed by death, but the vital action of the body has fairly supplied the losses incurred.

The new Fellows elected during the year 1871 were:—Captain T. B. Williams, John Somerville, George Stewart, and Rev. W. Gowan Todd, D.D.

The following members of the Association have taken out their Fellowships under the Queen's Letter:—Evelyn Philip Shirley, M.A., D.L., F.S.A.; Richard Rolt Brash, Architect, M.R.I.A.; Thomas Watson; Rev. John L. Darby, A.M.; Nicholas Ennis; Joseph Digges; F. E. Currey, J.P.; Hon. B. E. B. Fitzpatrick; Lt.-Col. Edward Cooper, D.L.; J. Ennis Mayler; Eugene Shine; Capt. H. M. P. Langton; W. R. Molloy; A.M.; Albert Courtenay; Rev. Maxwell H. Close; Lawrence Waldron, D.L.; Maurice Lenihan, M.R.I.A. (*Honoris Causa*); Edward F. Browne.

One Fellow and forty-seven Members have been elected during the year, making the number on the roll six hundred and sixty-five.

The publication of several original Irish documents in the pages of the "Journal," under the editorial care of Mr. J. O'Beirne Crowe, A.M., has elicited the approbation of Irish scholars both at home and on the Continent; and your committee can also point with satisfaction to the series of papers on our Irish lake dwellings, from the pen and pencil of Mr. Wakeman. The second part of the "Christian Inscriptions in the Irish Language," forming the Annual Volume for 1871, has been completed by Miss Stokes, and is in the binder's hands, only waiting the delivery of some plates, to be placed in the hands of the members who have subscribed for it.

The loss to Irish Archæology in general, as well as to your Association in particular, caused by the death of the Earl of Dunraven, cannot be overestimated. To a sound judgment and deep knowledge of Irish Archæology, that nobleman added an unflagging zeal for the study and preservation of our national antiquities. His position and means gave him the opportunity of indulging those tastes to the full, and it is believed that his death has deprived us of a grand and comprehensive work on Ancient Ecclesiastical Architecture, to amass materials for which he had devoted the labours of many years. It is to be hoped that some competent and kindly hand may be found to take up the work at the point where its progress has been so unfortunately arrested.

In the Hon. Justice George and the Rev. John Greene, P.P., Skerries, the Association has been also deprived by death of zealous and long-tried friends.

In conclusion, your Committee trust that all Members will bear in mind that in dependence on their honour the Journal of the Society is now placed in the printer's and engraver's hands at the commencement of each year. Subscriptions should, therefore, be paid in as soon after the first of January as possible. By the rules they are due in advance, and it must be evident that the very existence, not to say the usefulness, of the Association, depends on the members remembering that your Treasurer is personally liable for the outlay in the first instance, and on their carrying out their part of the compact without waiting, as is too often the case, to be reminded over and over again of their debt of honour.

The report was adopted, and ordered to be printed.

The suggestion of the Committee, respecting the Museum and Library, was then discussed.

Mr. Graves pointed out how desirable it would be to have such arrangements made as would render the library and museum of permanent usefulness; even supposing their Association at any future time ceased to exist, the museum and library need not die with it, if arrangements were made to secure their permanence. To do this, it would be necessary to have means of displaying the collection in the museum to better advantage than at present, to have a suitable remuneration provided for a competent person to be present on such days as might be arranged for its being open to public inspection, and for the binding and suitable casing of the books. They had a large collection of the transactions of kindred societies, not merely in this country and England, but in Denmark, Sweden, France and America,—books which money could not buy in the market, but which were presented to them by the various societies in exchange for their own publications. These all required binding. There were also a great many works of general literature, presented by the various authors and others, which required to be catalogued. These collections were placed in Kilkenny, as being the centre of the Association; but they were not available to the large mass of the members, who resided elsewhere, and therefore it was that the committee thought that aid in their arrangement and preservation ought to be invited in the locality, outside the Society's limits, so as that the general local public might have the advantage of them, which it was impossible that the great body of the members of the Society could have. It would not be fair to the large body of the members to take from the Association's funds the amount necessary to be expended on the museum and library to make it what the committee desired, because the funds ought to be expended in making the publications of the Society as valuable as possible, that being the only real return which could be given for their subscriptions to the great number of members residing at a distance from Kilkenny, and very few of them would ever have the opportunity of visiting the museum, or taking any benefit from the library.

After a discussion on the part of several members, on the motion of the Rev. Charles A. Vignoles, seconded by the Rev. Dr. Martin, the following resolution was unanimously adopted:—

"Resolved—That, in order to improve the museum and library of the Society, and to render it more interesting to the public, subscriptions be requested from the gentry of the county and the citizens of Kilkenny for the purpose, particularly as it is the intention of the committee to open the institution to the public; also that a sub-committee be appointed to carry out the necessary arrangements."

The following were elected as members:—Right Hon. the Earl of Dunraven; Rev. W. Henry Fraser, A.B.; Louis Daniel; John Lloyd; George Reade, J.P.; William Irvine; John Martin; W. J. Lemon; Andrew Gibb, F.S.A.; Alexander Menzies; Polliott Barton, C.E.; William Moore.

The Very Rev. Dean Watson and Barry Delany, Esq., M.D., already members of the Association, were advanced to fellowships, on complying with the rules in that respect.

PRESENTATIONS.

A number of books presented by kindred societies to the Association's library were laid on the table. Amongst them were several volumes from the Royal Society of Antiquaries of Copenhagen.

Mr. Robertson presented to the museum an encaustic flooring-tile of a novel pattern; also an ancient roofing slate, or rather flag, from the ancient Priory of St. John, Kilkenny.

Mr. Prim, on the part of Mr. Thos. Keogh, Park, Carlow, presented an exceedingly small pocket-shaped bronze celt. Mr. Keogh wrote to say that it had been found in Tineyland bog, at about nine inches under the surface, in a place where the ground had never before been ploughed.

Mr. Duncan Robertson sent for presentation two interesting drawings; one of the Round Tower and Seven Churches of Clonmacnoise; the other of the Fair Gate of New Ross (some time since removed by the Town Commissioners there) produced by him under the instruction of Mr. Wakeman as drawing-master at Portora Royal School.

INTERESTING HISTORICAL DOCUMENTS.

The Rev. James Graves brought before the meeting some transcripts of extremely interesting documents of the year 1644, connected with the proposals made, at the period of the cessation of arms between the Royalist and Confederate Catholic armies, for sending reinforcements composed of the latter troops to the aid of the King, in his struggle with the Parliamentary army in England. The documents were chiefly connected with the number and condition as to arms, accoutrements, &c., of the regiments under the command of Owen Roe O'Neill at the time; but the most curious paper contained a key to the kind of cipher used in the correspondence between Ormonde and the confederate leaders, at the time, for the purpose of preventing the enemy from understanding the meaning of the letters in case of their falling into their hands. It appears that whenever Owen Roe was spoken of in the correspondence, he was referred to as "The Merchant you know." Colonel McGuire was "ye drover;" Colonel Richard Farrrell, "ye shephert;" Colonel Francis Farrrell, "Scrivener;" Sir Phelim O'Neill, "Tornor;" Phillip M'Hugh O'Reilly, "ye tanner;" Roger More, "ye shoemaker;" Lewis More, "ye cottner." Men of lesser note seem to have been designated by numerals—Dillon was "3;" Datone, "4;" Nugent, "5;" Tuite, "6;" Sir Luke Fitzgerald, "8;" the Sheriff, "9;" Lord Westmeath, "10." Districts and towns were designated by the names of places elsewhere, and chiefly by the names of streets in Dublin. The county of Cavan was "Bridge-street;" Longford, "Castle-street;" Westmeath, "Thomas-street;" Kilkenny, "Sheep-street;" Munster was "High-street," and Ulster was "Multiferan." In corresponding about military necessities, provisions, &c., arrangements involving curious changes in designation were made. Horses were described as "sheep," gunpowder was "madder," match was "starch;" food for soldiers, "loffe sugar." Foot soldiers were indicated as "Spanish iron;" artillery as "good weight;" well armed as "good ware;" ill-armed as "bad stuff, &c. Mr. J. P. Prendergast, author of "The Cromwellian Settlement," to whom Mr. Graves had submitted these documents, sent a very valuable historical sketch of the circumstances of the period with which these arrangements were connected, and which fully illustrated the papers laid by the rev. gentlemen before the meeting.

FIND OF CARLOVINGIAN COINS.

The Rev. John F. Shearman, Howth, sent an interesting account of a recent discovery of coins, at Mullaboden, Ballymore Eustace, Co. Kildare, accompanied by beautifully-executed facsimiles, in tin-foil. Mr. Shearman stated that, some excavations having been made last March in the pleasure grounds at the residence of Mr. Hoffman, at Mullaboden, in the course of the operations pagan kistvaens were found, the sides and ends being built of uncemented stones. In these were turned up bones, a flint hatchet or arrow-head, and a small bronze pin with a ring at top. The pin was of a very artistic character, the arrow-head an article unusual to be found with the remains of a more recent date, and may not have been originally placed with the coins. However, the most interesting part of the discovery made, was the picking up of, as nearly as he could learn, eleven silver coins, although he thought it likely that more had been got than the workmen gave up. Of the eleven, he had himself three coins, and Mr. Henry Copeland, of Ballymore Eustace had five; two of the remaining three were given to Mr. Hoffman, one to Mr. Latouche,

of Harristown—these latter three Mr. Shearman had not seen. Three of the coins were *denars* of the period of the Emperor Louis I., le Debonnaire, A.D. 814-840; another *denar* of Pipin, King of Aquitaine, A.D. 817-838; another of Charlemagne, A.D. 796. Mr. Shearman, besides sending the facsimiles which he made, fully described and gave the legend on each coin. All seemed in excellent preservation. He said he was not aware of any other find of Carolingian coins in Ireland. A gold coin of the Merovingian dynasty had been found near Maryborough, and was already described in the Association's "Journal" (vol. iv. p. 246). A considerable number of coins of Charles the Bald (A.D. 875-877), were found in England with Anglo-Saxon coins of the same period, and most probably had formed part of the dower of the Princess Judith, wife of Æthelred, the first king of the Anglo-Saxons 866-871. The coins composing this find made at Mullaboden may have reached Ireland through the ordinary channels of commerce, and circulated through the Danish and native population, but it was, nevertheless, a curious fact that donations for charitable purposes were sent to Ireland by the Emperor Charlemagne. In proof of this fact, Mr. Shearman cited the epistle of the famous Alcuin to Colgu "The Wise," the Lector or Moderator of Clonmacnoise, quoting from Colgan's Acta, SS., and he went on to observe that the learned Colgan tells us that Colgu was of Hy Dunchada; but he unfortunately does not say to which of the Hy Dunchada Colgu belonged. The Leinster Hy Dunchada, was in the neighbourhood of Mullaboden.

The Rev. Mr. Shearman's communication (which will be published in the Association's "Journal") excited much interest.

KILKENNY PAST AND PRESENT.

Mr. P. Watters, Town Clerk, read a paper affording a contrast between Kilkenny as it was in the olden time and at the present, as regarded its approaches from the country on every side; showing that if the city had lost ground as to manufactures and in other ways, it certainly had improved much in its roads and general approaches. This was illustrated by extracts from Grand Jury Presentments from the reign of Queen Anne to the present day.

Amongst the other papers brought before the meeting, were the following:—

"On some unrecorded Antiquities in Yar Connaught," by G. H. Kinahan, Esq., M.R.I.A., the Association's Provincial Secretary for Connaught.

"On some Antiquities of Oak in the possession of J. G. V. Porter, Esq., of Bellisle, Lisbellaw, Co. Fermanagh," by W. F. Wakeman, Esq.

"On the Whitty Monument in the ruined church of Kilmore, Co. Wexford," by M. J. Whitty, Esq.

The usual vote of thanks having been passed to donors and exhibitors, the chairman declared an adjournment till the first Wednesday in April.

SUGGESTED AMENDMENTS TO SANITARY ACTS.

THE Medical Officer of Health of St. George's, Hanover-square, London, has, at the instance of the Committee of Works, submitted some amendments of our sanitary laws, which are worthy of attention. There is no doubt but all our sanitary laws are most imperfect, and not a little confused. The Government could not be engaged on more useful and practical work than devoting a portion of the next session of parliament to a consideration of our present sanitary laws, with a view to a reform in their administration. It is clear they do not work evenly or at all satisfactorily. Neglect, corporate and individual, is still rife; and though the present sanitary laws are sufficient to grasp with a great many evils or nuisances, a great many others still exist untouched. Dr. Aldis, the Medical Officer of Health alluded to, says:—

"First—I would suggest that the medical depart-

ment of the Local Government Board be asked to empower the vestry to refer to a committee the authority to carry out such sections of the Metropolitan Local Management Acts as relate to the abatement and removal of nuisances, in the same way as they are empowered to refer the carrying out of the Nuisances Removal Acts by the 5th section of the 18th and 19th Vict., cap. 121. Second—That, with a view to steps being taken to prevent the spreading of infectious diseases, every medical practitioner should immediately report such cases, occurring in private or public practice, to the Medical Officer of Health of his district. Third—The 23rd section of the Sanitary Act stipulates that the nuisance authority in each district may provide a proper place, with means of disinfection. The word "shall" should be used for "may," when necessary, adding also a power to destroy infected articles where necessary. Fourth—The 25th section of the same Act provides a penalty on a person suffering from an infectious disorder entering a public conveyance without notifying to the driver that he is so suffering. This clause should be so modified as to impose the duty and penalty on the person in charge of the sick, when the latter is of tender years, or is incapacitated by bodily or mental disease. Fifth—That the Board of Guardians of every parish or union be compelled to provide suitable carriages for the removal of patients suffering from infectious diseases, and to give public notice where such carriages can be obtained. Sixth—The 27th and 28th sections should be made compulsory for the provision of mortuaries and reception-houses. Seventh—In the 38th section the words "public place" should receive some addition, so as to prevent persons who have just recovered from infectious diseases from selling goods in their shops before they have been certified to be free from the risk of infection. Eighth—Persons should incur a penalty who wilfully conceal the existence of scarlet fever or small-pox."

Our city authorities—corporate and union—might improve their limited wisdom, with advantage to themselves and those whose interests are committed to their charge, by conning over the above suggestions. Local Government in Dublin is either stand-still, or retrogressive in its action.

THE NEW HOUSE THAT JACK BUILT.*

A Sanitary Version for Grown Children.

TWELVE CUTS.†

Paper'd and plaster'd and painted down,
Nicely placed in the skirts of the town:
This is the House that Jack built.

This is the roof and the soaking rain
Dripping right through in search of the drain,
In the New House that Jack built.

This is the nursery toss'd about,
Where smoke is kept in, and air kept out,
In the New House that Jack built.

This is the bed-room floor,—do you see?
And right at the end is the w.-c.,
In the New House that Jack built.

This is the gas-pipe, sectional view,
'Neath the floor, with a nail driven through,
In the New House that Jack built.

This is the view of the kitchen floor,
The maid, and her bed behind the door,
In the New House that Jack built.

These are the dogs and the ladylike cats
That would not harm the mice or the rats,
In the New House that Jack built.

This is the downward draught of the smoke,
Through the patent flue, designed to choke,
In the New House that Jack built.

This is the pump next the cesspit-wall,
Showing the well-hole, source, and outfall,
In the New House that Jack built.

This is a view of the stagnant drain,
Where gases rise and fall with the rain,
In the New House that Jack built.

This is the master, ill in his bed,
And that is the doctor at his head,
In the New House that Jack built.

This is the coffin and stately hearse
Of the luckless subject of my verse,
That died in the House that Jack built.

IRISH PORCELAIN AND ENGLISH POTTERY AT BERLIN.

THE annexed extract, which we take from a late issue of the *Berliner Fremdenund Anzeigblatt*, will be read with pleasure by English and Irish manufacturers and others. It shows the importance

given by foreigners to British pottery and porcelain manufacture when creditably executed. There is, perhaps, no country on the continent of Europe of late years where more attention has been paid to the question of technical education than Germany. In art, science, handicraft, and literature Germany is making rapid strides. Alas! too, in the art of war her progress, as late events have shown, is more advanced than humanity cares to eulogise. Perhaps the very highest limit that can be reached in the art of destruction will beget the reaction that must one day ensue when nations must either cry quits or disappear together:—

"An Exhibition of English Pottery, originated by the Government, is now open daily, free, from eleven to three o'clock, in the Palace Monbijou, and deserves general attention on account of the importance of this extensive collection from an industrial point of view. This collection was brought together for the London International Exhibition of 1871. The London firm of Mortlock distinguishes itself by its beautiful turquoise blue porcelains. The invention of G. J. Cox, of London, deserves especial notice. It reproduces, upon porcelain, plants faithfully coloured after nature, although the decorative application of them leaves much to be desired as regards the arrangement. Doulton and Watts, of Lambeth, have contributed a collection of vessels in stone-ware of artistic shape, mostly of an ornamental character. The collection of glazed earthenware from the Benthall works of Maw and Co. excites the admiration of connoisseurs, as well as of the general public, on account of the lustre of the colours, and the sharpness of the modelling preserved after the burning. The collection consists chiefly of tesselæ for decorating walls, and of ornamental vases in majolica colours. The great central group of the Exhibition is formed by the collection of Minton and Co., of Stoke-upon-Trent. The majolicas of this firm are exemplary as to colour, although they are not always examples of taste as regards the modelling. Their imitations of good old fayence ware deserve especial attention, and likewise their copies of Henri Deux ware. Other singularly interesting productions of this firm are their wall decorations from Persian, Japanese, and Chinese patterns, tesselæ, &c. One of the most remarkable art works is also found among the exhibits of Minton, a representation of a gem, pâte sur pâte—white on blue ground—imitating in the most perfect manner the transparency of gems. This imitation is the work of a French modeller, but its perfect technical execution belongs after all to the English makers. The elegant Irish porcelain articles for the decoration of rooms by M'Birney are remarkable for the brilliancy of their glazing, which is like that of mother-of-pearl. Copeland and Son, of London, have successfully adopted the technical process of old Sevres porcelain, with inlaid small gold plates and imitations of small pearls. The celebrated porcelain works of Wedgwood have contributed pieces ornamented with gay and charming groups, which are executed in a wonderfully dexterous manner; they are painted by a French artist, Lessore. The pieces exhibited are the originals, which have been purchased by our (the Prussian) Government as patterns, as well as several other of the principal objects. Battam and Son have successfully imitated in porcelain the precious Limoges enamels of the 16th century. The Royal Porcelain Works at Worcester are imitating, in their porcelains, in the most excellent manner, the warm yellowish tint of ivory, as well as the rendering of colours upon ivory. The South Kensington Museum has lent a collection of ceramic works of various nations, amongst which the vessels for the use of the peasantry of Spain, Egypt, Persia, Russia, and Switzerland excite attention on account of their artistic shapes. The Spanish articles for daily use are particularly interesting for the tradition of classic forms which they show. Amongst the other works, those of Ginori of Naples are especially prominent. Portugal and Sweden are represented by majolicas. The English articles for daily use which are intended for the colonies, and are sent to the far East amongst half-civilised peoples, are also remarkable. The Exhibition is superintended by Inspector Hesse and Dr. Lessing; and one of these gentlemen is daily to be found in the Exhibition rooms, to give information, from one till two o'clock. The English Government is represented by Major de Winton, who also superintends the sale of objects in the interest of the English manufacturers. On Wednesday, the 13th December, their Imperial Highnesses the Crown Prince and the Crown Princess visited the Exhibition. In conclusion, the attention of manufacturers, as well as of the general public, is called to this opportunity of becoming acquainted with the pottery of England, so rich in variety, which has developed itself in such a surprising manner since the International Exhibition of 1851, and the foundation of the South Kensington Museum."

* From the *Builder*.

† The author would be very much pleased to see these lines practically illustrated in the interest of the public health. The readers of the *Builder* scarcely need it. No copyright reserved.

IRISH EXHIBITION OF ARTS AND INDUSTRIES.

LAST week a meeting of the Sub-committee of the Fine Arts Department took place at the Exhibition Palace. The Marquis of CONYNGHAM presided.

There were also present—the Earl of Howth, the Earl of Charlemont, Mr. J. C. Stronge, Sir J. J. Coghill, Bart.; Sir Wm. Wilde, Mr. W. Ellison Macartney, Colonel Adamson, Mr. John Wardell, Mr. Catterson Smith, Mr. H. E. Doyle, Mr. Kirk, Mr. Kennedy, the Secretary to the Fine Arts Committee; Mr. Lee, Manager to the Exhibition; and Mr. Emden, Secretary.

The form of a letter was agreed to which was to be addressed to the owners of valuable collections, asking them for leave for exhibition.

Regulations were also discussed and settled as to the admission of pictures and objects of art. Other routine business was gone through, the proceedings terminating with a vote of thanks to the Marquis of Conyngham.

SCHOOL OF ART, ROYAL DUBLIN SOCIETY.

ON Monday evening the distribution of prizes to the successful students at the above school took place in the Lecture Theatre of the institution. Dr. Evory Kennedy read the annual report prepared by the head master, Mr. E. Lyne, to whom the prosperity of the school is in the main to be attributed. After which he made some remarks on the good likely to be effected by such an institution. "He (Dr. K.) hesitated not to assert that, if placed on an equality with London and Edinburgh pupils, they would excel every school in Great Britain."

In response to a vote of thanks to the judges, the President of the Royal Hibernian Academy said that the work had been a labour of love to them, and the only difficulty experienced was that of deciding between almost equal merits. The arrangements of the school were excellent, and a great improvement was everywhere observable as compared with last year.

Mr. George Woods Maunsell thought that the Chairman of the Fine Arts Committee had taken a disagreeable duty on his shoulders by alluding to the want of a museum in Dublin, and reading them a lecture on the subject. He hoped that the bull-dog who guarded the British Exchequer would, in the present year, be induced to do something for them.

The Lord Lieutenant gave a lengthened address, in which he advocated the formation, under the auspices of Government, of an Art-Museum in Dublin. He would give his earnest attention to the movement.

The prizes were then distributed, and the meeting separated.

"SPEED THE PLOUGH."

PLOUGHING matches in Ireland were always popular, and the district of Fingal formerly carried off many honours. The famine year, and the exodus of a large portion of our agricultural population during the last quarter of a century, sadly interfered with these healthy competitions. We notice with pleasure some successful evidences in the double ploughing, accomplished by Messrs. Ransomes' new patent double plough. The Messrs. Ransomes achieved, last year, triumphs in twenty-one counties in England. They have also carried their triumphs into Scotland and Ireland. Our gentlemen farmers, and other large practical farmers throughout the country, ought to wake up at once. The matches this year have not long commenced, but the same makers' success has long been unprecedented. In England their double ploughs have won the only three matches that have yet been held—viz., East Chester Ward, Croxdale, and Brancepeth, as well as all the single plough

prizes at the latter match. In Scotland they have competed twice, and won at Mid Calder the second prize, and were lightest draught out of ten competitors; whilst at Dalkeith, on Saturday last, the first prize and silver medal were awarded to them against twenty-two competitors, the largest number ever brought together at one match, and including ploughs of almost all the Scotch makers. Messrs. Ransomes' plough was also considerably the lightest in draught. In Ireland they have been equally successful, having won the first prize at the only two competitions in which they have entered—viz., the Ten Guinea Challenge Cup, at Athy, for the second time in succession, and at Maryborough on Tuesday last, the first prize for the best double ploughing, and the silver medal for the best work in any of the classes. The pride and "practice of Fingal" was once proverbial, and the Messrs. Sheridan's ploughs oft turned the sod with gracefulness and effect. Can we not hope for a new spirit and fresh displays in Ireland?

L A W.

ACTION FOR RECOVERY OF ARCHITECT'S FEES.

CONSOLIDATED NISI PRIUS COURT.—JAN. 27.
(Before Mr. Justice Barry and a Common Jury.)

William S. Cox v. William H. O'Sullivan.—The plaintiff in this case, an architect and civil engineer, carrying on his profession at George-street, Limerick, sued the defendant, a hotel-keeper and general merchant, residing in Kilmallock, to recover a sum of £35 14s. for work and labour. Plaintiff's case was, that defendant employed him in March, 1871, to inspect the site of a plot of building ground in Kilmallock, upon which he proposed to build, and asked what he would charge. Plaintiff said, "not much to him, as he would take the opportunity of inspecting it when in the neighbourhood," which he did on the 20th March, and then received instructions from Mr. O'Sullivan (taking his own measurements as to heights, &c.) to prepare the plans for two shops, with dwelling-houses over, a bottling store in rear of same, offices, &c. The defendant saw the plans from time to time during their preparation, and slight changes being made in same, he finally approved of them, and urged the writing of the specification, in which also he suggested various changes. Having approved of all, he was furnished with copies, and commenced building himself. He subsequently wrote to the plaintiff, asking what his charge was for plans and specifications, and to know how much he would charge for each visit to the works. Plaintiff furnished his bill—14s. for car-hire, and £35, being 2½ per cent. on the estimated cost of the building, £1,400. The defendant refused to pay, saying he could not see what difference the amount he intended expending had to do with the plaintiff's charges. The building at the time of the action was about half carried out in accordance with the plans prepared by plaintiff, and defendant admitted an outlay of £800, and said £200 more would finish it. The amount—£15—awarded by the jury, together with the £10 lodged in Court, would just amount to the 2½ per cent. on the £1,000, stated by defendant to be the value of the building. The frontage of the building is 72 ft. by 28 ft. in depth by 32 ft. in height from flagway to eaves, being three storeys high, with a bottle store, 31 ft. by 23 ft., in rear, and offices. The ethical contents are 98,213 ft., at 3½ d., = £1,433 14s. 7½ d.—the work being plain; and defendant superintending himself, lime and stone being procured on the site. With regard to the "defects" in the plan, as stated by defendant, they merely amounted to the ground and first floors being 1 foot lower than he intended, the figuring being from floor to floor; but these figures were furnished by himself (defendant) to plaintiff, and defendant limited the total height to 30 ft. to eaves, which would not afford the rooms to be higher, so that, in point of fact, the plans were prepared in strict accordance with the instructions given by defendant. The defendant lodged £10 in court as sufficient to cover the claim, alleging that there was no agreement as to the percentage to be charged; that that sum was ample for the work done, and that there were defects in the plans, which reduced their value.

Mr. John Neville, County Surveyor, Louth, and Mr. Charles Geoghegan, F.R.I.A.I., architect, were examined. They proved that the usual rate of charge for such work as that done by plaintiff,

and as laid down by the Royal Institute of the Architects of Ireland, was 2½ per cent.

His Lordship, in charging the jury, told them that unless they believed a special agreement had been made that the customary rates were to be charged, they should not take these as binding in law, simply because they had been adopted by the Institute of Architects, or award that amount unless in their opinion it was fair and reasonable remuneration for the character of work done.

The jury found for plaintiff for £15 in addition to the sum lodged in court, with costs.

Counsel for plaintiff—Messrs. Heron, Q.C., and Gerald Fitzgibbon. For defendant—Messrs. James Murphy, Q.C., and N. G. Blackhall.

SANITARY MATTERS.

WE anticipate that throughout the present year there will be more practical sanitary work achieved than there has ever before been attempted in this country. There has already been numerous efforts manifested, but they needed a sustaining spirit and a practical direction, and, failing in this, the good they achieved was problematical.

From a recent report read at a meeting of the Cork Town Council, and also from the statement of the Mayor, we learn:—"The total work done under the Sanitary Committee last year were 76,725 inspections of houses and yards, averaging 1,476 weekly visits; 8,196 persons were noticed to cleanse and whitewash their premises; 6,599 dwellings of the sick poor, with 839 yards, were cleansed and whitewashed; 714 beds were destroyed and new straw supplied; 544 persons were summoned and fined in amounts varying from 6d. to 10s. and costs each, for keeping their yards in a filthy state; and 452 were summoned for obstructing the streets. In addition to this, as regards whitewashing and disinfecting, there are two, sometimes three, gangs of men and horses constantly engaged washing the narrow lanes of the city. All are washed twice, some four times, and others six and ten times every week. I may mention that, as regards a very fertile source of spreading disease, that comparing the state of the city in 1872 with 1862, I find that through the exertions and vigilance of our officers there exist at present only 8 manure depots, while there were 89 in 1862. In addition, I may mention, which I do not for the purpose of replying to the observations of the gentlemen I have referred to, but as showing part of the ordinary routine work of the Sanitary Committee, that this week there were 1,881 houses and yards examined; 148 persons noticed to cleanse and whitewash their premises, 279 houses of sick poor whitewashed, 32 dirty yards whitewashed, 31 beds destroyed and new straw supplied, 6 yards cleansed by owners with water and brush, 46 yards similarly cleansed by Corporation workmen, 12 persons summoned in Goodwin's-lane, Paul's-street, Harper's-lane, and Friar's Walk, for manure, dirty yards, &c., and fined 1s. to 2s. 6d., and costs; 5 lanes were washed ten times; 45 lanes six times; 7 lanes five times; 14 lanes four times; 13 lanes three times; and 12 lanes twice, making a total of 474 washings. Our system is now, that, by a suggestion of mine, the dispensary physicians immediately report to Mr. Walker every case of infectious disease that comes under their notice, and Mr. Walker proceeds to the dwelling and thoroughly disinfects the house, destroys the hedging, cleanses the yard, and permits nothing to remain that might spread infection. As far as regards human machinery, we are not neglecting any reasonable precautions. We are, of course, in the hands of Providence, and I can only say for myself, and in doing so I but express the wishes of the Council and the Committee, that our desire and care were not to look upon this matter as a question of money, that we were not to study any small or false economy, but use every possible means by every reasonable expenditure to remove any cause of disease. I have felt it my duty to make these observations because I considered that the only inference that could be drawn from the remarks I alluded to was that we were neglecting our duty."

We wish that our Dublin Corporation could give such a good account of their stewardship.

The Kingstown Public Health Committee, which was appointed in March, 1871, sat weekly until a few weeks ago. From the report of the Commissioners we find that asphaltting (the description not stated) was carried out in the main thoroughfares; that all the courts, lanes, &c., where the poor reside, were well supplied with fountains; and to this end service-pipes, amounting to 2,158 ft. of lead-piping, and 1,000 ft. of galvanised gun-barrel were provided. Notices were issued to abate 409 nuisances, which were complied with in 112 cases where summons had to be issued, and out of these 115 convictions were obtained. There was

other minor but necessary sanitary work also performed. New lamps are about being erected at several points, and a system of main drainage is proceeding, though very slowly, from an alleged want of funds.

In Dublin, matters are but little mending. A numerously-signed memorial, praying for the suppression of the depôt at Blackpitts, was read at one of the late meetings of the Public Health Committee. The nuisance caused by the deposit of the scavenging stuff on the bank of the Royal Canal, near North William-street, for the purpose of shipment, was also brought under the notice of the Health Committee, and No. 1 Committee were requested to order discontinuance of the practice.

The Government have refused the use of the old prison at Grangegorman as a convalescent home for small-pox patients on their discharge from hospital. A sub-committee was appointed to obtain premises suitable for the purpose. We think the Government in this instance might have granted the use of this prison, at least temporarily. However, there are some other old buildings in Dublin, we think, that could be obtained.

Elsewhere in our columns other matters are touched upon bearing upon sanitary matters in this city.

THE BARONESS BURDETT COUTTS' MEMORIAL.

A MOVEMENT is on foot in London, originated by a section of the working men of the east of the metropolis, principally in the district of Bethnal-green and Spitalfields, to erect some substantial memorial in honour of Baroness Burdett Coutts, late Miss Burdett Coutts, in recognition of her munificent benevolence in the interest of the London poor, but principally of the eastern and poorer quarters of the city. There is no living woman in our generation deserves to be honoured more than this most humane and charitable lady. Her father, the late Sir Francis Burdett, was a great reformer early in the present century, and for a considerable time the idol of the people. He suffered imprisonment for his principles in 1810, and his name in Ireland was held in great esteem.

The Columbia Market—which was built at the sole expense of this lady, and which comprises an extensive block of buildings, offices, halls, stalls, reading-rooms for the working classes, all designed and erected for the accommodation of the poorer classes of the people—has been lately handed over to the London Corporation, almost unconditionally, save the expressed desire that it should be managed in the interest of the poor of London.

As a result a presentation is about being made, consisting of a gold casket, with the resolution of the Markets Committee, by the Corporation, to the Right Honourable Baroness Burdett Coutts. The casket has been designed and manufactured by Messrs. Hunt and Roskell (late Storr and Mortimer), New Bond-street. Although the immediate occasion of this presentation is the transfer by her ladyship to the City of the Columbia Market, it has been thought advisable to adopt a wider range of subject, and to illustrate the principal types of the charitable actions for which her ladyship is so well known. With this view the body of the box is divided into eight panels, seven being occupied by engraved tableaux of acts of mercy: "Feeding the Hungry," "Giving Drink to the Thirsty," "Clothing the Naked," "Visiting the Captive," "Lodging the Homeless," "Visiting the Sick," and "Burying the Dead." The eighth and centre panel in front bears the arms and supporters of her ladyship, chased in high relief, and enamelled in the heraldic colours. Supporting the box are four angelic figures, emblematic of Prudence, Justice, Temperance, and Fortitude. The lid, which is domed, with a scroll ornament at each corner, bears on the front an engraving of a fishing scene, in allusion to the foundation of the market, and the corresponding panel at the back is occupied by an appropriate inscription. On one end is a group of flowers and vegetables, and on the other a landscape with cattle. The city arms and supporters form the apex of the lid, and round its edge run the words, "Let your light so shine before men that they may see your good works and glorify your Father which is heaven." Ornamental borders are introduced in various portions of the box, and the inside of the lid bears an engraving of the front of the Columbia Market.

Whatever form the public testimonial to be erected to the honour of this really noble lady may assume, we trust it will be a creditable and representative one. The working poor of London are much indebted to her benevolence, but it is not them who ought to be called upon to subscribe, but others who are above the reach of want, and who have

also largely benefited by this lady's large outlay of capital.

TRADE SOCIETIES AND TRUSTEES.

THE CARPENTERS' STRIKE.

SINCE the publication of our last issue a case has been heard at the Northern Police Court, before the Chief Divisional Magistrate, in which all non-registered Trades Societies should be deeply interested. The case referred to arose out of the late "strike" of the carpenters of this city. Thomas Parker, Wm. Cormack, and others, complained that Patrick MacDonald, Bernard Gaffney, and others, "being trustees of property for the benefit of complainants, did, with intent to defraud, convert and appropriate the same to their own use." In their informations the plaintiffs averred that the defendants were appointed trustees of certain moneys which had been collected and paid in for the purposes of the "strike," and that since its termination they have neglected or refused to furnish vouchers or account for the disposal of a large proportion of the entire sum (supposed to be over £900). According to the recent statute under which the action was brought, the sworn informations should be filed by the Attorney-General. This was accordingly done, and the case entered for hearing. Mr. Philip Keogh having opened the plaintiffs' case, proceeded with their examination. After a short time the magistrate intervened, and announced that he would not hear any evidence as to the alleged fraud until proof was given that the defendants were appointed trustees by resolution, and that such resolution should be sworn to by members of the trade. As it appeared, none but the chairman and secretary were cognizant of the written resolution, and they being amongst the defendants the whole thing fell through.

It is well known that on such an important occasion as a "strike," resolutions are passed by the body, and an entry of them should be found in the minute-book. In this instance neither the original slip nor the entry were forthcoming. Mr. Parker repeated from memory the substance of the resolutions passed, with the dates, and the names of the movers and seconders. His Worship complimented Mr. Parker on the manner in which he had given his evidence, remarking, "If these men do not look after their own interests, they cannot expect that I will." We presume he alluded to the want of proper management in the Carpenters' Society.

ICE, WATER, AND AIR.

PROFESSOR Tyndall, F.R.S., delivered his fifth lecture on Saturday, the 6th ult., at the Royal Institute, on the above interesting subjects. The Prince Imperial of France, and a very large attendance of men of science, ladies, and youths, were present.

Professor Tyndall, in speaking of the river-like motions of the glaciers, says that not only does the glacier slide over its bed, but the upper layers of ice glide over the under ones, and the centre slides past the sides. He also spoke much about the nature of the great crevasses in the ice, and said that in walking over a glacier explosions are often heard, sometimes as if directly under the feet of the listener, yet, on looking round, nothing is to be seen. Sometimes several of these are heard in quick succession, as if the ice were breaking up all around, still nothing is visible to account for the noise. After perhaps an hour's strict search the observer may discover the cause of the noises, which severally announce the birth of a crevasse. Air-bubbles may be noticed rising through a pool of water in the ice, and the bottom of the pool will be found to be crossed by a narrow crack from which the air-bubbles rise. Right and left from this pool the young fissure may be traced through long distances. It is sometimes almost too feeble to be seen, and at no place is it wide enough to admit a thick knife-blade. It is difficult to believe that the formidable fissures, the great and gaping chasms in the glaciers, begin in this way; and it teaches in an impressive manner that appearances suggestive of very violent action may really be produced by processes so slow as to require refined observations to detect them. In the production of natural

phenomena, two things always come into play, namely, the *intensity* of the acting force, and the *time* during which it acts. Make the intensity great and the time small, and there is a sudden convulsion: but precisely the same apparent effect may be produced by making the intensity small and the time great. This truth is strikingly illustrated by the Alpine ice-falls and crevasses; and many geological phenomena, which at first sight suggest violent convulsion, may be really produced in the selfsame almost imperceptible way. The lecturer then explained how and why the crevasses at different parts of the glacier run for the most part in particular directions. In speaking of the formation of icebergs, he said that in high latitudes great glaciers sometimes end in the sea. As the great river of ice flows into the water, the water tries to float it, and by its upward pressure sometimes breaks off great masses of ice of irregular shape, which float out to sea as icebergs. In other places the water sometimes melts the under surface of the ice, and masses then break off into the sea, because of want of support from below. Some of the greater icebergs are not uncommonly 750 ft. high, but the greater portion of them is below water, so that the visible portion of them may be but 150 or 200 ft. high. From Baffin's Bay these mighty masses come sailing down into the broad Atlantic. A vast amount of heat is demanded for the simple liquefaction of the ice; and the melting of icebergs is on this account so slow that when large they sometimes maintain themselves till they have been drifted 2,000 miles from the place of their birth.

There were no experiments, but the lecture was illustrated by many very beautiful photographs on glass, which were magnified and projected upon the screen, by means of the electric lantern.

MR. BAZALGETTE AND THE THAMES SEWERAGE COMMITTEE.

It is not going to be all plain sailing with Mr. Bazalgette, in respect to the Drainage of the Thames Valley. With one leg in Dublin and the other in London, pushing forward separate schemes diametrically opposite, the great engineer, the pet of our Corporation, is likely to meet with strong opposition. At an influential meeting of landowners and others, held at the Red Lion Hotel, Hampton, the other evening, General Wood, of Littleton, in the chair, it was unanimously resolved:—"That the Thames Sewerage Commission Drainage Scheme, proposed to be submitted for the sanction of Parliament in the coming session, should be energetically opposed; that the following gentlemen, with power to add to their number, be constituted a committee, to take the necessary steps to organise and conduct an effective opposition: General Wood, Captain Archer, F. O. Martin, F. J. Kent, H. E. Knight, Leathley, French, and Grove, Hampton; P. Birch, jun., Barnett, and Michison, Sunbury, and Jones, Ealing; and that, to defray the necessary expenses, a public subscription be commenced, and all persons interested be invited to contribute thereto." A subscription list was opened, and eleven gentlemen put their names down for £20 each. It is understood that the committee will arrange for the holding of meetings in other districts included in the Thames Sewerage Commission Bill.

MINERAL STATISTICS.

In the annual report on the mineral produce of the United Kingdom, Mr. Robert Hunt draws attention to a very important and serious matter—the steady and rather considerable increase in the product of coal. It appears that in 1868 we produced 103,141,157 tons; in 1869, 107,427,557 tons, an addition of 3,286,400 tons; and in 1870, 110,431,192, an increase of 3,003,635 tons.

In the same years our manufacture of pig iron shows a corresponding augmentation. This will represent an increase in the consumption of coal for this manufacture alone of not less than 1,426,650 tons in 1869, and of 1,553,274 tons in 1870. We may, therefore, estimate an increase of at least 600,000 tons in the consumption of coal for this branch of iron manufacture. Our exports in 1870 show an increase of 742,933 tons. These quantities will very nearly account for the three millions of increase shown.

The iron ore appears to show an increase over the production of 1869 to the extent of 2,862,129 tons. This is not an actual addition.

In the returns of former years a considerable quantity of calcined ore was reckoned as such, whereas it has all now been computed into raw ore.

The following is a general summary of the mineral statistics for 1870:—

	Quantities Tons	Value £
Coal	110,431,192 ..	27,607,798
Iron ore	14,370,654 ..	4,951,220
Copper ore	166,698 ..	437,851
Tin ore	15,234 ..	1,002,357
Lead ore	98,176 ..	1,200,209
Zinc ore	13,586 ..	41,058
Iron pyrites (sulphur ore) ..	55,428 ..	36,026
Arsenic*	4,050 ..	17,739
Gossans, Ochres, &c. ..	4,844 ..	4,261
Wolfram and Tungstate of Soda	51 ..	653
Manganese	4,838 ..	19,499
Nickel	3 ..	27
Barytes	6,515 ..	3,771
Clays, fine and fire (estimated)	1,200,000 ..	450,000
Earthy minerals, various (estimated) .. .. .	.. ..	575,000
Salt	1,489,450 ..	744,725
Coprolites (estimated) ..	35,000 ..	50,000
Total value of the minerals produced in the United Kingdom in 1870 .. ..	.. ..	£27,142,194

The absolute total value of the metals and coals, with other minerals which are not smelted (excepting building stones, lime, slates, and common clays), produced in the United Kingdom in 1870, was as follows:—Value of the metals produced, £18,486,802; value of the coal, £27,607,798; value of other minerals, £1,851,700; total value, £47,946,300.

MISCELLANEOUS.

COUNTY SURVEYORSHIPS IN IRELAND.—The vacant surveyorship of the East Riding of Cork has been filled by the appointment of Mr. Charles Booth Jones to the post. Mr. Jones was the successful candidate at the open competitive examination for this appointment held last month. The salary is £400 a-year.

ST. DOMINICK'S BRIDGE, DROGHEDA.—Mr. Neville, C.E., County Surveyor, had an interview last week with the Corporation in committee, and their engineer, Mr. Greene, relative to St. Dominick's Bridge, which for some time past has been closed against traffic. It was found that the cost of thoroughly repairing the bridge would be very considerable, and that the result would probably not repay the outlay. After discussing the subject, it was decided to close the bridge against vehicles and heavy traffic, and to reserve it entirely for the use of pedestrians, to whom it will be opened as soon as the pressing repairs are made. In a couple of years the Corporation will have to consider the advisability of constructing an iron bridge there, and when the necessity shall arise we hope they they will have the means to do so.—*Conservative.*

THE CHICAGO FIRE MONUMENT.—A young German architect in Chicago has drawn a plan whereby the great fire shall be commemorated. His design is to erect in one of the public parks a tower about 100 ft. in height, which shall be surmounted by a phoenix—the tower to be built with blocks of stone or bricks taken from the prominent buildings destroyed by the fire. On each of these blocks the names of the building from the ruins of which it was taken is to be conspicuously engraved. That all these names may be seen by the curious of future years, the top of the tower is to be reached by an exterior winding stairway.

THE STRENGTH AND PROPERTIES OF MATERIALS.—We (*Engineer*) have for years persistently put before our readers the fact that nothing is so much needed for the advancement of engineering science as experiment. A great Irish political leader of the people once made "Agitate! agitate! agitate!" his watchword. In like manner, we use the word "Experiment! experiment! experiment!" Nothing can be added to our existing stock of knowledge without it, and those who experiment most frequently and most thoroughly best appreciate the value of the practice. In nothing are we more deficient than in our knowledge of the properties of iron and steel. We have much yet to learn about steam and the steam engine; about fuel, about boilers, about ships, roads, railways, bridges; about stone, timber, and cement; about, in fact, every subject with which an engineer, civil or mechanical, has to do. But about nothing are we more ignorant than of the properties and qualities of iron and steel; and it is not difficult to

* Nearly 2,000 tons of this arsenic will have been obtained from the burning houses on the tin mines. A considerable quantity is produced at Swansea, of which no return has been obtainable.

find the cause of this ignorance. It results simply from the fact that the varieties of iron and steel in the market are almost endless, and the processes of production are numerous and diversified, while the records of experiments made with the materials under different forms, and produced and used in different ways, are comparatively few and far between. On the importance of possessing accurate information concerning the properties of materials used in construction we need not dwell. Every one admits it; but, unfortunately, the number of those who endeavour by direct experiment to increase their knowledge of the subject is, as yet, extremely limited.

ILLEGAL SEIZURES.—A case under the Lodgers' Protection Act of last session was, a few days since, before the Westminster police magistrate. A superior landlord had levied upon the goods of his tenant, to whom one of his lodgers owed 7s. for rent. The latter tendered the money, but it was refused, and his goods, valued at £12, were sold for a guinea. The bailiff who made the distraint was now summoned, and the magistrate ordered him to pay £6 to the lodger, less the 7s. rent tendered, together with the costs of the summons.

QUALITY OF GAS IN LONDON.—Dr. Letheby, the chief gas examiner appointed by the Board of Trade, has submitted his quarterly report of the illuminating power and chemical quality of the gas supplied to London by certain of the gas companies, from which it appears that the average illuminating power of the common gas has ranged from 15.58 sperm candles in the case of the Imperial gas at Camden-street testing place, to 17.80 candles in that of the Chartered Company at Friendly-place, Mile-end; and the average illuminating power of the canal gas of the last-named company having been 24.93 candles. The amount of sulphur in the gas has ranged from an average of 21.03 grains per 100 cubic feet of the Chartered gas at Friendly-place, to 40.3 grains in the same company's gas at Gray's-aim-road testing place. In the corresponding quarter of last year the range was from 19.78 grains per 100 cubic ft. to 33.17 grains; and in the case of the canal gas the average quantity was 28.54 grains in the quarter which has just expired, while in the corresponding quarter of last year it was only 12.27 grains at Cannon-street, and 24.39 grains at Arundel-street. The amount of ammonia in the gas has averaged from 0.09 of a grain per 100 cubic feet to 1.22 grains, the quantity prescribed by the referee being 2.5 grains.

COST OF THE LONDON LORD MAYOR'S-DAY BANQUET, &c.—The cost of the dinner and wines on Lord Mayor's-day was £1,122; the decorations, £825 4s. 11d.; the procession, £273 19s. 10d.; music in Guildhall, £33 2s.; printing and stationery, £166 16s. 6d.; general expenses (the items of which are specified), £206 12s. 3d. Total £2,627 15s. 6d. Of this the Lord Mayor paid £1,213 17s. 10d.; the Sheriff, each £606 18s. 10s.; and the City Lands Committee, £200.

TO CORRESPONDENTS.

THE ANCIENT LAND SYSTEM.—The customs of Tonaistry and Gavelkind were abolished by a decision of the Court of Queen's Bench somewhere about the year 1605. Almost any of our several histories of Ireland supply particulars of its nature.

THE CHARTERS OF THE CITY OF DUBLIN.—Several charters were granted to Dublin during the last 600 years, and several charters were granted also to our ancient City Trade Guilds or minor Corporations. Magna Charta was extended to Ireland by Henry III., with other charters which were afterwards confirmed during the reign of Edward I.

CITIZEN PROPERTY.—The so-called Corporation property in many cases did not, nor does not, belong to the Corporation. It was simply given in trust to the Corporation for the use of the citizens. In 1217 the fee-farm of the city was granted to the citizens at a rent of 200 marks.

PUBLIC AND PRIVATE ABATOIRS.—We have devoted some remarks to the subject in the present issue. All abattoirs should be outside the precincts of the city. Private slaughter-houses are often public shambles, for we have often witnessed the beast knocked down behind a curtain or screen in the very shop where the meat was offered for sale an hour afterwards. In any remarks we have inserted elsewhere in our columns on this subject, our desire was not to injure any man's private interest, who may have honestly complied with a very lax and reprehensible system. It is on the head of the Municipal Council the chief blame rests for not providing for the common public decencies of civilised life.

CURRENT LITERATURE.—A paper on this subject is unavoidably held over.

ANCIENT IRISH ARCHITECTURE.—Mr. R. R. Brash continues his interesting and well-considered notes on our Early Ecclesiastical Architecture. We hope he will have many industrious imitators, who will feel a pride in thus adding to their own and their country's fame, as well as to the neglected literature of their honourable profession.

TO CORRESPONDENTS IN GENERAL.—Useful and interesting correspondence on public matters is often sacrificed in consequence of not reaching our hands until the eve of publication. Correspondents should write a day or two previous to the date of publication.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette.* Made simply with Boiling Water or milk. Each packet is labelled—JAMES EPPS & CO., Homoeopathic Chemists, London. Also, makers of Epps's Cacaoine, a very thin beverage for evening use.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filled with vestas, at one penny. Any Tobacconist, Grocer, Chemist, or Chandler will supply it.

REPORT OF DR. ARTHUR HILL HASSALL ON MAYAR'S SEMOLINA.—"I have carefully tested, chemically and microscopically, the samples of Semolina sent by Messrs. L. Mayar and Co., 36 Mark-lane, E.C. I find them to be perfectly genuine, of excellent quality, and eminently nutritious. They contain a very large percentage of nitrogenous matter, chiefly gluten, and are far more nutritious than any other food, such as Arrowroot, Tapioca, Sago, Corn Flour, Farinaceous Food, ordinary Wheat Flour, or any of the Cereals in use as food in this country." (Signed) "Arthur H. Hassall, M.D., London."

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

RATES OF SUBSCRIPTION TO IRISH BUILDER.

(Town.)	s.	d.	(Post.)	s.	d.
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Among the many specimens of the stone in Dublin may be seen the Church, Upper Ormond-quay, built in 1846, or the front of the new Offices of the Scottish Equitable Insurance Company in Westmoreland-street.

The superior Lime is now selling at 5½d. per hhd., at the Works; or at 7½d. per hhd., delivered at Dublin Terminus of Dublin and Drogheda Railway.

The Irish Builder.

VOL. XIV.—No. 293.

The Revival of Fresco and Mural Painting.



OF late years the subject of fresco or mural painting has been attracting much deserved attention, but the results are as yet not altogether very satis-

factory, or even creditable to the art culture of Great Britain. Considering the great triumphs which were achieved centuries ago, at home and abroad, in this art, since it revived we ought to have made a much greater advance than we have done. By a return to an order of the House of Commons, containing a copy of reports to the First Commissioner of Works and Public Buildings on the frescoes in the Houses of Parliament, we glean some little information. This report emanates from a committee of artists employed in decorating Westminster Palace, and is signed by the following artists:—Messrs. Cope, Watts, Ward, Armitage, Herbert, F. S. Barff, and E. J. Poynter. The summing up of these respective gentlemen is, that notwithstanding the ill success which has attended the efforts at fresco painting of late years, the use of it ought not to be abandoned. The failure is alleged to be probably due to the want of experience in the method among English artists. This in itself is somewhat a sad admission, for we had reason to believe that we had sufficient artists in our midst who could overcome every difficulty, if only reasonable encouragement were given.

Ireland in days gone by could boast of examples in fresco and wall painting, and examples of it still remain, though scant, to prove that the art was in no ways uncultivated, despite the long civil contentions going on for centuries in this island. The Greek artists practised three forms of painting—firstly, distemper, which was employed for mural pictures; secondly, glazing, when the picture, after being finished in water colours, crayons, or distemper, was covered with a hard and transparent varnish; and, thirdly, encaustic, when the colouring matters, incorporated with wax or preparation of wax, were applied in a liquid state, and, when finished, allowed to dry. Colouring marble statues and vases was also adopted. Gibson, the well-known English artist, attempted to do something towards the revival of colouring the nude statue, and was partially successful; but fashion and the art feeling of Europe seemed to set its face against this revival, no matter how successful the execution. The question is yet a moot point whether the pure marble is at all improved by any process of colouring.

Fresco painting requires great proficiency and care, for when once begun it does not admit of re-touching, like oil painting or water-colours on canvas. When the subject

is finished in fresco, no unsatisfactory appearance can be amended or corrections made without spoiling the whole appearance and effect. We find that the Romans were in the habit of colouring their walls while the plaster was fresh or wet, for the purpose of producing one uniform tint or ground colour, decorating afterwards in distemper when the surface was perfectly dry. Fresco painting substituted encaustic painting about the 15th century. At the end of the 16th century it fell into disuse, and then remained in abeyance until between fifty and sixty years ago, when some partial efforts were made towards its revival. In Lincoln's-inn and at Westminster Palace some fair examples of fresco painting may be seen; those at the latter place are executed on lath and plaster, the walls behind being covered with slate. Stone walls would seem to be the worst ground for the purpose, as they are apt to condense the damp on their surface. On any walls built with sea sand fresco painting would be most dangerous. The lime used for making the plaster intended for fresco purposes should be pure carbonate of lime, free of any admixture of iron or any other mineral substances. The lime used in England is obtained from special quarries, one of them being Durdham Down, near Bristol; but there are other quarries just as good. *Fresco Secco* is another description of the process sometimes called dry fresco, in which the whole of the ground is spread upon the wall before the painting is commenced, the surface being moistened with lime water before the painting is begun, and it is kept damp during the execution. Polychrome is a name also employed to designate the colouring of walls and architectural ornaments.

In a great many of the mediæval buildings wall painting or fresco to some extent was adopted. There is very little doubt if the history of the process in the British Islands was diligently hunted up there would be a great deal of interesting information amassed respecting the extent of the practice in former times, both in connection with our domestic as well as our ecclesiastical architecture. The modern vandalism of whitewashing, with which many of our ecclesiastical buildings were disfigured and destroyed, has, without doubt, completely annihilated or coated over many good examples of wall painting.

Even at this date it is quite possible to recover some specimens by a careful examination or scaling of the walls. Many fine specimens have been destroyed during church restorations in stripping off this brutal whitewash, as the ground containing the original painting was destroyed at the same time. The stone in some of our buildings has been found to be painted upon, the colour being mixed with wax varnish to render it impervious to moisture. Large spaces were formerly left without any ornamentation in our churches, and these, looking unsightly, suggested some sort of wall covering to relieve their cold and blank appearance. Thus mural painting or fresco, or other forms of the same art, were adopted to add to the architectural effect of the inward edifice, with the additional element of stained glass in the windows. Floral and geometrical figures, saintly and symbolical representations, embodying sacred or scriptural subjects were painted, and the glass in the windows was treated in conjunction with the subjects on the wall. Many examples are turning up every other year in our restored churches to

prove the truth of what we have advanced in our remarks.

It was our intention to have adverted to some specimens of fresco or wall-painting in Ireland existing, which, though not very artistic, are very old and venerable examples of the art. The taste and art that could produce the specimens of illumination to be seen in connection with many Irish MS. volumes in this country is sufficient to warrant us in believing that fresco and wall illumination and painting also flourished to a much greater extent than is surmised. For two or three centuries back this country was noted for having a great many Italian artists practising here, and their abilities in the working of stucco ornamentation is to be seen in many of our old public buildings and noblemen's mansions not only in this city but throughout the country. Italian stucco-workers, architects, and artists were in numbers in this city at one period, and the last of them had not died out at the commencement of the present century.

On another occasion we will enter at greater length on this most interesting subject, and endeavour to bring to the discussion of our subject proof of the practice of fresco and mural painting in Ireland, and of the artists engaged, and the places where their work was executed. We commend the subject to the attention of our Irish schools of art in this city, and to our Royal Academies, Archaeological Societies, and all others desirous either of encouraging the true revival of this lost art, or of preserving the examples that yet remain to us in this island.

PROPOSED LOWERING AND IMPROVEMENT OF NEWCOMEN BRIDGE.

A MEMORIAL has been presented by a portion of the ratepayers of Clontarf township to the Corporation, asking for the improvement of this bridge, a work which has been long required. The memorial set forth the estimated cost at about £3,500, and that the reconstruction of the bridge would be of great advantage to the township of Clontarf and to the city. It was said that the Midland Railway Company were willing to contribute towards the improvement, and it was also added that the Dublin Tramways Company offered to give £500. The memorialists prayed for a grant of £1,250 from the corporate funds (?) towards the work. The managing director of the Tramways Company has since published a letter contradicting, on the part of the company, that they have promised any sum towards the Newcomen Bridge improvement, although the manager himself admitted that the lowering of the bridge would be of advantage to the company. The sum, of course, if any be voted, must be voted with the consent of the board of directors in London. We might have something to say on this part of the subject on another occasion, but we will defer our remarks until we see the culmination of the memorial, which has been referred to No. 1 Committee.

In respect to the improvement in question, there can be no doubt that it will be a decided advantage to the county gentry and farming classes; and Annesley Bridge, though the crown of it is not so high, it would be an advantage if it had been lowered long since. Its incline on the city side is too steep; on the county side, the approaches being filled-up ground originally, the rise was gradual

and spread over a long distance. The incline of Newcomen Bridge is most steep and harassing for all harnessed animals, and it is to be hoped that in any design submitted for its lowering, a really practical plan will be adopted.

We do not consider that in the reconstruction of the bridge it is at all necessary that it should be a stone or brick erection. If there was room for the turning of an arch, after a perceptible lowering of the inclined sides and crown of the present structure, we would offer no objections to a tasteful stone structure; but, with the preservation of the navigation of the canal, we believe that there cannot be any useful lowering and improvement of Newcomen Bridge without resorting to the substitution of an iron bridge. The new bridge need not be, like too many of our modern iron railway structures, hideously ugly. The height can be lowered several feet, and the incline or ascent on each side considerably reduced without interfering either with the railway or canal traffic. A moveable bridge could even be adopted, which would allow the height to be still more reduced. Or a plan similar to that at the Broadstone might be also followed; but against this there would be many objections which, though they might not be valid ones, would have, perhaps, some show of reason on their side. What we want is a useful and artistic structure; and if it be possible to give us this, with the additional improvements that a thorough lowering ought to effect, the public will have reason to be satisfied.

With a Main Drainage Scheme and Quay Wall and Bridge Bill on the wheel, we fear the assistance of the Corporation of Dublin will only be of that kind which allows people to pay for projects out of their own pockets, and afterwards charge them for the permission of allowing them to spend their own money.

As much as we like to see building works and improvements going on, we dislike on the other hand to see a lavish expenditure of public money. We do not see how the projected improvements of Newcomen Bridge need amount to near the cost put down by the memorialists—£3,500. The work could be done at a sum considerably under that figure, if it is kept clear of all sorts of jobbery and useless extras and superintendence.

As we will have occasion on another opportunity of reverting to the subject, we will merely content ourselves by saying that we agree in the belief that an improvement is most necessary, and that both the county and the city will be benefited if it is practically carried out without a needless amount of expenditure.

ROYAL DUBLIN SOCIETY.

It may be remembered that in 1868 a Commission, presided over by the Marquis of Kildare, inquired into the question of the establishment in Dublin of a General Science and Art Museum, to partake of the nature of the London and Edinburgh ones. The report that resulted recommended—first, that a range of buildings be erected on three sides of the present courtyard of the Society's house, to be connected in the upper storey with the present suite of library rooms. In this range of building should be placed the present Natural History Museum, the Museum of Ornamental Art being formed in the present library rooms. Other similar collections could be also, from time to time, added. Second, that the present Museum building be fitted up as a library with commodious reading-rooms. Third, the

erection of a new School of Art, and the temporary use of the present School of Art building for the purpose of a Museum of Ornamental Art. A few days since the Council of the Dublin Society waited upon the Lord Lieutenant with reference to the erection of the contemplated suite of buildings. The deputation was a very influential one, and the case of the Society was very clearly stated by Mr. Stoney, the Secretary, and supplemented by the Marquis of Kildare, Sir Richard Griffith, Mr. Maunsell, Dr. Kennedy, and Colonel Adamson.

The Lord Lieutenant said he was most anxious to see the establishment of a General Museum of Art and Science in Dublin, and hoped that other societies might be embraced in the scheme. The Council of the Dublin Society are understood to be willing to co-operate with other bodies in carrying out the object sought. Ground plans of the intended buildings were submitted to his Excellency, showing the method by which it is proposed to carry out the object. The plans embrace a New School of Art in connection, which is not the least of the requirements needed.

THE AUDIT OF THE CORPORATE ACCOUNTS.

It is possible that one of the committees of the Corporation is already congratulating itself on a lucky escape from, perhaps, a shameful exposure. Perhaps the Corporation in general feels a little more at ease, and has a little breathing time granted to it to put its books in order before the day or ordeal arrives. One thing we may promise with a certainty, that there will be an exposure, whether it comes through the Government auditor or others who are, perhaps, better acquainted with the backslidings so characteristic of our present Municipal Council. The danger is in no ways over. If we are not mistaken, the danger but increases the more. If no guilt exists on Cork-hill, why should there be such fear exhibited? If all is above-board, why should there be a deputation to the Castle? Has one valid reason been given, except a most trumpety one, entirely beneath the level of honest and rational thinking men? Be it known to our citizens, that they have the power, at any time within the year, of demanding an audit. This can be done by memorial or requisition. The Local Government Act we knew full well would play mischief with the affairs of the Dublin Corporation. Independent of the action of the new Act, indictments can be preferred in other ways known to the lawyers, and if the ratepayers of the city are not spiritless to the lowest degree, they ought to make this year of grace memorable in the history of the Corporation of Dublin.

RESTORATION OF EXETER CATHEDRAL.

The work is actively progressing, and is entrusted to Mr. Gilbert Scott, who is represented at the works by Mr. Shelgrove. The contractor, Mr. Luscombe, is a local one. The stalls and reredos will be supplied by Farmer and Brindley, Westminster Bridge-road, London. The decoration and colouring will be by Clayton and Bell, Regent-street. The work is at present confined to the choir, choir aisles, and various chapels adjoining. The Lady Chapel is rapidly approaching completion, the ancient colouring of the roof having been reproduced, and a handsome new stained glass window put in by Chancellor Harrington. On removing the coats of whitewash from the walls, particularly near the various tombs in the chapel, the restorers have found clear evidence of very rich colouring, and the subjects of much of the painting is evident to any ordinary observer. Much of the colouring of the adjoining chapels of St. Mary Magdalene and St. Gabriel has also been reproduced, and is very beautiful. The carved work of the screens of all three of these chapels has been from time to time much mutilated, but the portions that are gone are being replaced, the specimens that remain being taken as the guide. About half of the

choir is completed. The Purbec marble columns which support the choir have had a very great deal of work bestowed upon them, much of the surface marble having rotted, so that it has had to be removed and new substituted. The repair of ten of these columns has taken no less than 100 tons of marble, and one that has been completely turned out of hand is in a semi-polished state, and judging from the appearance of this one, the pillars will be one of the main features of the beauty of the restoration. The roof of the choir appears to have been profusely decorated with gold, but it is not yet decided whether this shall be reproduced. The colouring of the bosses has, however, been restored, and the details of each are now clearly seen from the floor, as also are the various features of the delicately worked corbels, which will remain without any reproduction of the colouring, the plaster and whitewash merely being removed from them. The bishop's throne—date 1317—which is covered with black paint, is having attention turned to it, and it is found that the original colouring of this splendid specimen of oak carving was white and gold; it has been determined to reproduce these colours. The solid brick screen behind the stalls has been removed, and a pierced stone screen is being erected in its place, so that the aisles may be utilised for service. The sedilia on the right side of the communion is considered a matchless piece of stone carving of the very early decorated period, and it is now discovered that it was profusely decorated with gold colouring, which is to be brought out again, and it is anticipated that the appearance of this work will then be very beautiful indeed. The old reredos is removed, and one of alabaster, decorated with agates and precious stones and local marble, is to be erected at a cost of £1,700, borne by Chancellor Harrington and Dr. Blackball. The stalls are all to be new and of carved oak. The colouring of the roof of the choir aisles will not be reproduced. The work that is already done gives the choir a remarkably fresh appearance, and the carving looks particularly crisp and delicate. The chapel of St. Saviour that was partly destroyed during the Commonwealth to make an entrance, is to be entirely restored, and the entrance blocked up again.

CARLISLE CATHEDRAL.

We learn that Mr. G. E. Street, the well-known architect who is entrusted with the restoration of Christ Church Cathedral, in this city, has been commissioned to proceed at once with designs for an elaborate reredos, bishop's throne, and other artistic fittings for the choir of the Cathedral Church of Carlisle.

THE INTERNATIONAL EXHIBITION.

THE pressure of a widely and generally expressed public opinion has at last prevailed, and the Royal Commissioners have had to give way. The International Exhibition will not therefore be converted into a huge bazaar, to the injury of legitimate traders. The Marquis of Ripon presided on the 16th over a meeting of the Royal Commissioners for the Exhibition of 1851. There were present—the Earl Granville, Sir Alexander Spearman, Mr. Ayrton, Sir Francis Sandford, Mr. Edgar Bowring, Mr. Gibson, Dr. Lyon Playfair, Mr. Thring, and Major-General Scott (secretary). Mr. Cole attended the meeting. His Royal Highness the Duke of Edinburgh and His Royal Highness Prince Arthur were elected members of the Commission. The following resolutions were passed with reference to the representations made by the deputation from the Metropolitan and Provincial Association for the Defence and Advancement of Trade Interests, who attended the last meeting of the Commissioners.—1. Her Majesty's Commissioners are desirous that persons engaged in the production of such articles as are comprised in the manufacturing division of each exhibition should be associated with them in the selection of objects in that division. 2. Her Majesty's Commissioners consider that the exclusion of works of fine art from the Exhibition, by reason only that the material employed for them is not one of the classes for the year, is inadmissible. 3. Her Majesty's Commissioners do not agree with the deputation that either the interests of art, or those of the public, would have been injured by the proposed sales of manufactured objects, not in the Exhibition itself, but in the annexes, in accordance with conventions entered into with the French and Belgian commissions. As, however, the French and Belgian commissions have most liberally relinquished the rights accorded to them, her Majesty's Commissioners, with the view to reconcile conflicting interests as far as possible, will adopt the rules, as respects sales, laid down for the Exhibitions of 1851 and 1862.

NOTES ON THE ECCLESIASTICAL
ARCHITECTURE OF IRELAND.BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A. SCOT.

(Continued from page 50.)

THE FIRST TRANSITION PERIOD.

The progress of architecture in Ireland from the fifth to the twelfth century appears to have been very slow, as in truth it was all over christendom. In France, internal discords and external interferences retarded its growth up to the period of the Norman conquest, when, strange to say, these ruthless invaders became its firmest promoters. After the victorious sword of Rollo had won for himself a patrimony in the fair lands of the Franks, they embraced christianity, and settled themselves down as permanent *habitats*, parcelling out the conquered estates among the victorious chiefs and soldiers, and making serfs of the original occupiers. The genial influences of their new faith made a remarkable change in these rugged warriors, leading them to cultivate the arts of peace; hence they became the most zealous of church-builders; adopting the Romanesque forms and details which had been slowly advancing their influences from northern Italy into southern and central France, they gave that style so important a development, that the term Norman architecture has been accorded to it by most architectural critics and writers, and by general consent has been adopted, as a true and significant term. This development commenced early in the tenth century, Rollo, the first duke of Normandy, contributing to the erection of the great churches of Rouen, Bayeux, Evreux, Jumieges, Mont St. Michael, &c.

Very little is known of the architecture of England before the Norman Conquest. It has been attempted to establish a Saxon style (see Rickman and others), but with dubious success; some peculiarities in the churches of Brixworth and Earls Barton, hitherto relied on, have failed to give the requisite evidence. The abbey church of St. Albans was at one period recognized as a Saxon building, but we now know that it was erected by the Abbot Paul, about A.D. 1078, and principally out of the materials of the Roman town of Verulam; it exhibits many of the details of the so-called Saxon style. The Saxons of course had churches, but as to their size, style, materials, or ornaments, we have no means of judging from any existing examples, and no reliable information from our early historians. The slow development of church architecture in Ireland may be principally attributed to internal discords and external invasions, notably the latter. The Danish inroads commenced in A.D. 795, and from that period until their defeat at Clontarf in 1014, they harassed the country in the most incessant and persevering manner; taking possession of the seaport towns, and establishing themselves therein, they sailed round the coasts and up the great navigable rivers, plundering and burning all before them; their attention being principally attracted to the monasteries and churches. Some faint idea of this fearful scourge may be had from an examination of the *Annals of the Four Masters*, and the *Chronicon Scotorum*, between the above recited dates, and notably, from "The Wars of the Gaedhil with the Gaill." Unfortunately, Ireland had not only to contend with external enemies, but with internal discord and treason; the provincial chiefs not only fought among themselves, in the presence of the foreign enemy, but they occasionally sided with that enemy against their own countrymen. This unhappy state of things continued down to the accession of Brian Boroinhe to the throne of North Munster, which took place A.D. 976. This monarch's early life was spent in constant conflict with the Danes, who had fortified themselves in Limerick, and had all but subjugated West Munster. On his assuming the reins of power, after the treacherous murder of Mahon by Molloy chieftain of Desmond, he appears to have pursued a set-

tled and determined line of policy. He first destroyed the power of the Danes of Limerick; he next attacked their Irish allies, Donovan, chief of Hy Fidhginte, and Molloy, chief of Desmond, the assassins of Mahon, who he had the satisfaction of avenging, by their deaths in battle and the subjugation of their territories. He defeated the Danes of Waterford and Cork, and their allies the Desii, in a desperate battle fought near Macroom, and having reduced the entire south under his sway, he appears to have conceived the idea of establishing a firm and powerful monarchy in Ireland, as the only safeguard against internal discords and foreign invasions, a project which his advanced age prevented him from fully succeeding in.

It could not be expected that, under such unfavourable circumstances, either arts or sciences could have made any progress in the country; and, were it not for the wonderful endurance and tenacity of the Gaedhelic character, the people must have sunk into a state of utter barbarism, and have lost every trace of their previous civilization. The efforts made by Brian to repair the evils under which his country suffered were such as became a wise and patriotic monarch. He encouraged men of learning and of skill in the arts; he erected and repaired churches, contributed to their ornaments and furniture, constructed bridges, causeways, and roads, and established such a respect for the laws, that to his reign is attributed the legend of a beautiful maiden, bearing a valuable gold ring on her wand, traversing his territories unattended and unmolested. Brian particularly deplored the destruction of the libraries of valuable manuscripts which had been collected in the monastic seminaries, and which the Danes invariably gathered in heaps and burned, or otherwise destroyed. He appointed certain learned men to go abroad and to purchase, at his own expense, works on science, history, and theology, to make good these losses, as is recorded in the "Wars of the Gaedhil with the Gaill," p. 139:—"He sent professors and masters to teach wisdom and knowledge, and to buy books beyond the sea, and the great ocean, because their writings and their books, in every church and in every sanctuary where they were burned, and thrown into water by the plunderers, from the beginning to the end; and Brian himself gave the price of learning and the price of books to every one separately, who went on this service."

All through the period of the Danish inroads, however, we can trace a slow but perceptible advance in ecclesiastical architecture. The churches increased in size, and a marked improvement is observable in their details. While the stone-lintelled door-ope was retained, an attempt at ornamentation is discernible, as in the plain architrave round these features in the churches of Ratass, Co. Kerry, Our Lady's, at Glendalough, and Tomgraney, Co. Clare.

Again, we find a period when this primitive form of door-ope became disused, and the semicircular head, hitherto confined to windows, and usually cut out of one or two blocks, superseded the massive lintel, as at Killaspugbrone, Co. Sligo, and Britway, Co. Cork, where we find regularly-constructed arches properly radiated in their joints. A further step is observable in the churches of Oughtamama, Co. Clare, and Sheepstown, Co. Kilkenny, where the arched heads spring from chamfered impost, and still further in that of Temple Connor, Clonmacnoise, which shews a plain-moulded impost. The same progress is also to be noticed in the windows, which increase in number; the cut-out head gives place to plain arches, as at St. Nessan's, Co. Dublin, Mungret, Co. Limerick, and many others. It is curious to observe that, amidst these changes, the inclined jambs were still retained in both doors and windows.

We now come to a period when mouldings came to be employed, principally in the window-opes. One of the earliest examples will be found in the east window of the church of Ratass. This edifice stands on the high road

within a mile of the town of Tralee. When originally finished it was a splendid specimen of the mason's craft, being built of large blocks of red sandstone, brought a considerable distance from the mountains. The west gable is particularly noticeable for the massiveness and excellence of its masonry, its cyclopean doorway, and the antæ on its quoins. Did we meet such a quaint and old-world-looking piece of work in Argolis or Tuscany, we would readily ascribe it to the Pelasgi or Raseni. The east end of the church would appear to be an addition; the east window is semicircular-headed, having large inward splays (see engraving.) The external head is cut out of a block, but, internally, it is carefully arched. The external and internal jambs are finished with an arris moulding, which is continued on the sills. A couplet window, somewhat similar in design, but of more elaborate finish, is to be seen in the east gable of Temple Righ, or, as it is sometimes called, Melaghlin's church, at Clonmacnoise. It is shown on engraving. There is a great peculiarity in these extremely narrow opes, splaying so widely internally; as at Ratass, the mouldings run all round the arrises, and we have here, in addition, a double chamfered string under the inside sill. This curious window is probably of later date than that of Ratass.

We have thus arrived at a period when we can observe a decided change in Irish church building; the old forms derived from a pagan age came to be disused, and forms prevalent in the christian architecture of other countries began to be adopted, though with strong national peculiarities. At what period this transition took place we have slender means of determining, as our native annals seldom record the erection of churches, though they constantly refer to the casualties they sustained. Dr. Petrie has shewn that the original church of Kilmacduagh was erected for St. Colman Mac Duagh, by his kinsman Guaire Aidhne, king of Connaught, A.D. 610. A portion of this church and its west doorway still exists.—(*Round Towers*, p. 382.)

Another early notice of the erection of a church is to be found in the *Chronicon Scotorum*, at A.D. 908, as follows:—"The stone church of Cluain-Mac-Nois was built by Flann, son of Maelechlain, and Colman Connailech." This Colman was the superior of Clonmacnoise, as we find his death recorded in the same work, at A.D. 925, where his erection of the church is repeated. As there are several churches at Clonmacnoise, and all of a respectable antiquity, the question arises, which of them this notice refers to? whether to Temple Connor, Temple Righ, or to a more ancient church preceding the present cathedral, which indeed at the western end shews evidence of early work, but not so early as 908. The age of the Nun's church is known, and Temple Fineen, that is, the nave and chancel arch must be of the latter end of the eleventh, or commencement of the twelfth century. If I would hazard a conjecture, I would say that the annal quoted refers either to Temple Connor or Temple Righ, more likely the former. The value of the record, however, is this—that it notices the erection of a stone church in 908. The same authority records the erection of another church at A.D. 964, as follows:—"Cormac Ua Cillín, of the Ui Fiachrach, Aidhne, Comarb of Ciaran and Coman, and Comarb of Tuaim-Greine, by whom the great church of Tuaim-Greine and its Cloitech were constructed, sapiens et senex et Episcopus quievit in Christo." This identical church, or at least a part of it, is at present in existence, and affords us some opportunity of determining the character of the buildings erected at that period. It is a rectangular structure, 73 ft. 6 in. long, and 27 ft. broad from out to out of walls, which are 3 ft. thick; internally, it is divided into a nave and chancel, by a modern wall which has no chancel arch, an ordinary doorway leading into the eastern end, which is used for the service of the Protestant Episcopal Church. This building is evidently of two dates. The west gable and about 37 ft. of the flank walls are built of massive

The third list is composed of miscellaneous remittances, for the following purposes:—

Per annum	Three commissioners of the revenue in England
For students at the universities and inns of court .. £9000	Profits of post-office .. £2000
Attendants and expectants at court, travellers, &c. .. 8000	Interest of £40000 English money .. 4000
Profits made by chief governors above their expenses .. 6000	£24000
Total Main Drainage, £136,018.	

So early as the close of the seventeenth century, it will be seen what a terrible draw there was on the resources of this island, and it would be a curious account were we to give in detail the kind of services for which some of the above pensions were granted. In the year of 1729 a list of the absentees—lords, gentlemen, and others having estates, employments, and pensions in Ireland—was drawn up, with which was given an estimate of the yearly value of the same. This work, with some degree of truth, is attributed to Thomas Prior, a well-known and patriotic gentleman of the period.

This list also, which was printed in Dublin, is divided into three parts or classes. The first class comprises those who live constantly abroad, and are seldom or never seen in Ireland.

The second class—those who live generally abroad, and visit Ireland now and then for a month or two.

The third class—those who live generally in Ireland, but were occasionally absent at the time the list was taken, either for health, pleasure, or business, but their number is commonly the same, for if some come home, others go abroad and supply their places.

FIRST CLASS.

Absentees, constantly abroad, with the yearly value of their estates spent abroad:—

Lord Arran .. £11000	Sir Redmond Everard, Bart. .. £1000
Blundel .. 2300	Colonel Fonks .. 1000
Boyne .. 1700	H. Arthur Herbert, of Castlehaven .. 3000
Burlington .. 800	Mark Hill, of Loughbrickland .. 600
Castlemoher .. 3000	Mr. Hobson, estate in County Down .. 600
Clanrickard .. 3000	Hugh Howard .. 800
Daniley .. 5000	Mr. Hill, in estate and interest of money .. 600
Delvin .. 400	Rev. John Jackson, of Lancashire .. 400
Digby .. 2500	Sir R. Kennedy's estate .. 1200
Donegal's estate .. 4000	Col. Lloyd's of England .. 1000
Gowran, in estate and interest of money .. 7000	London Society and Company of Derry, yearly incomes and fines included .. 8000
Grandison .. 6000	James MacCartney .. 2500
Archibald Hamilton .. 1000	Randal MacDonnell, Co. Clare .. 1400
Inchiquin .. 8000	W. Mitchell, of London .. 400
Kinsale .. 800	Hon. and Rev. H. Moore .. 400
Lynington .. 2500	Pleydell Morton .. 1200
Londonderry, in estate and interest of money .. 1200	Murray, of Bronghton, in Scotland .. 1000
Malton .. 6000	John Neal, of Coventry .. 900
Orrery .. 4000	R. Needham, of Jamaica .. 2300
Peaseley .. 1800	Sir Wm. Penn's estate .. 1400
Palmerston .. 3000	John Pigott, of Somerset .. 400
Percival .. 3000	Plunket, of Dunshaughlin .. 700
Shannon .. 2500	Jn. Rawlinson, of London, estate in the County of Derry .. 800
Thomond .. 6000	George Sabine .. 500
Stratford .. 600	Thos. Scawen, of London .. 2000
Weymouth .. 2000	Hon. Robert Shirley .. 2000
Lady Drogheda .. 1100	Oliver St. John .. 1400
Dowager Lady Doneraile .. 1500	— Smith .. 6000
Lady Jane Holt .. 400	Ralph Smith, sen. .. 800
Lord Eppingham Howard's daughters .. 1000	Sir John Stanley .. 1200
Dowager Lady Kildare .. 7200	Edw. Southwell, Secretary of State .. 2500
Lady Jones, widow .. 600	John Temple .. 5000
Betty Molyneux .. 1100	— Trenchard, County of Limerick .. 400
Pine .. 400	— Warrington .. 400
Late Lord Ranelagh's daughters, viz., Lady Coningsby, Lady Katherine Jones, and Lady Kildare .. 3000	Sir Thomas Webster .. 800
Francis Adams, of Lincoln's Inn-Fields .. 1000	Sir Cecil Wray .. 2300
Randal Adams .. 600	Several cities and corporations in England have estates in Ireland to the yearly value of (then) .. 1500
— Barrett, of Clonish .. 1200	Widow Bagnal .. 1800
Alderman Beecher, of Bristol .. 1200	Miss Edwards, in estate and interest of money .. 7000
Doctor Berkeley, Dean of Derry .. 900	Mr. Pine's daughter .. 1200
Geo. Rodney Bridges .. 800	Widow Putland, sen. .. 1000
Sir Brook Bridges .. 1500	Widow Titchburn (Tichborne) .. 400
Thomas Broderick .. 2500	Mrs. Vernon .. 800
John Chichester, brother of Lord Donegal .. 1000	
John Clayton, of the County of Cork .. 4000	
Sir William Courtney of Devonshire .. 8000	
William Domville, of the County Dublin .. 1400	
Joseph Damer, in estate and interest of money .. 1800	

In conning over the above list, the reader should bear in mind the value that the money represented at that period, and also the smallness of the population compared with

that of half a century and two-thirds of a century later. When he takes these two items into consideration, he will then realise what an enormous drain on the resources of the population and the country were these absentees of the first class, who continually resided abroad.

We now come to the second class of persons, who lived generally abroad, but who visited Ireland now and then for a month or two at a time. The yearly value of their estates spent abroad was given in the same figures as we give them, which represented their value early in the eighteenth century:

SECOND CLASS.

Lord Abercorn .. £2000	Lieut.-General Dowdal .. £400
Anglesea .. 7000	Capt. Charles Echlyn .. 1200
Barrymore .. 5000	Mr. Fox & Mr. Lane, late Lord Lanesborough, estate .. 3000
Carberry .. 5500	Joseph Gascoigne .. 1800
Fane .. 4000	John Hamilton .. 500
Fitzwilliam .. 5000	Sir Gustavus Hume .. 500
Kingston .. 2000	Brigadier Jones .. 400
Limerick .. 3500	Sir Randal MacDonnell .. 400
Middleton .. 1500	Mr. Mitchellwaite .. 600
Monntrath .. 4000	Hon. Capel Moore .. 1000
Mountjoy estate .. 2500	Hon. Robert Moore .. 400
Molesworth .. 1000	— Martin, out of Bagnal's estate .. 1000
Ranelagh .. 1800	Sir Edward O'Brien, bart. .. 2500
Shelburne, estate and interest of money .. 9000	Henry O'Brien's estate .. 2500
Lady Mary Cooley and her daughters .. 1200	Sir Thomas Prendergast .. 2000
Phil Prat .. 500	Patrick Segrave .. 400
Basil Ball .. 1600	Oliver St. George .. 2500
William Balfour .. 600	— Sloane, in estate and interest of money .. 800
— Butler, of Ballyragget .. 1500	Richard Whitsed .. 1500
Robert Colvill .. 5000	Benj. Walley, of London .. 900
Lieutenant-General Croft .. 500	Mr. Wogan, of Rathcoffey .. 400
Darcy .. 800	

The third class of absentees lived generally in Ireland, though often absent during the summer months. The list contains the names of those who left Ireland during the months of May, June, and July, on purposes of health, pleasure, or business.

Many names will be found in this last, as well as in the former ones, who are still represented in name in Ireland and England, and who have large properties in both kingdoms, which are of five times the value which they were when the list was first compiled. Some of the families mentioned in these lists have disappeared, though the estates have not; but even many of the estates, we have reason to believe, have passed through the Incumbered Estates Court, and passed out with new leases and into new hands.

THIRD CLASS.

Lord Bellew .. £600	Richard Lehunt, of the County Wexford .. £500
Blessington .. 800	George MacCartney, of Belfast .. 500
Forbes .. 1200	John Maxwell, of the city of Dublin .. 2000
Kingsland .. 2000	Sir Richard Meath, bart. .. 800
Skerin .. 2000	Mark Morgan, of the County Meath .. 800
Lady Kerry .. 500	George Ogle .. 600
Tyrone .. 800	Philip Percival .. 1400
Francis Bernard, jun. .. 1200	Periam Pole, of the Queen's County .. 1000
— Brown, of the Neal .. 500	Richard Reed, of the County Kilkenny .. 400
Francis Burton, County Clare .. 1000	— Riggs .. 1600
Sir John Burne, Bart. .. 2500	Arthur Stafford, alias Geoghagan .. 800
Rev. Dr. Clayton .. 600	— Tennison .. 400
William Connolly .. 800	— Tasborough .. 600
John Cliff .. 600	William Wall, Connty Waterford .. 1500
Rev. Mr. Cotterell, Dean of Raphoe .. 1000	Richard Warburton, of Garryhinch .. 1000
Henry Cunningham .. 800	Richard Wesley [Wesley] of Dangan (Duke of Wellington's ancestors) .. 3000
Sir Compton Domville .. 1500	Mrs. Dreincourt .. 400
— Dodwell .. 800	Widow Stafford, jun. .. 500
Henry Downing .. 400	Usher .. 800
Richard Edgeworth .. 500	Weisley [Wesley] .. 2000
William Forward .. 1000	
Charles Ford .. 600	
Sir John Freeke .. 1800	
Arthur Gore, of the Co. Clare .. 1000	
Capt. Arthur Gore .. 600	
W. Graham, of Drogheda .. 3000	
Sir Standish Harstonge .. 1200	
Edward Hussey .. 400	

In addition to the above, it was calculated that the yearly amount spent abroad by those whose income was under £400, and who either lived for the most part in England, or went there occasionally for pleasure or health, was £40,000. Half of these were supposed to belong to the first class, and the other half equally to the other two classes. It is to be noticed that there is no person mentioned in the preceding list whose income was under £400 per annum.

We have next a calculation of the very large sums spent abroad, either in England or on the continent, for the following purposes:—

The travelling expenses of dealers and traders, who go over yearly in great numbers from Ireland to England, to buy or sell commodities £3000

Spent yearly in the education of the children of Protestants, and men of fortune at Oxford and Cambridge, and the schools of England, and of the children of Catholics in foreign colleges £5000
Spent yearly by young students at the several Inns of Court 5000
Spent in law-suits on appeals to the House of Lords Courts of Delegates, and on writs of error in the Court of King's Bench in England, and for the advice of lawyers there on other occasions, yearly 9000
Spent in attendance and applications for employments Civil and Military and other business 8000

PROFITS OF EMPLOYMENTS SPENT ABROAD.

Post-office, per annum £6000
Vice-Treasurers, Lord Falmouth and Mr. Edgecumbe .. 8000
Lord Treasurer, Lord Burlington .. 363
Commissioners of the Revenue, four generally absent .. 4000
Auditor General, Lord Nassau Paulet .. 1000
Master of the Rolls, Lord Berkeley .. 1000
Master of the Ordnance, Marquis Montandre .. 800
Chief Remembrancer, Lord Palmerston .. 1200
Secretary to the Lord Lieutenant .. 2000
Clerk of the Polls, Mr. Doddington .. 1600
Secretary of State, Edward Southwell .. 600
Clerk of the Council, Mr. Poultney .. 600
Master of the Revels, Mr. Hopkins .. 300
Searcher of the Port of Dublin, Mr. Webster .. 400
Comptroller of ditto, Mr. Eldred .. 300
Registrar of Forfeitures and Clerk of the Quit Rent Office, Mr. Coppleston .. 700
Clerk of the Crown for Leinster, Mr. Witchot .. 250
Do. do. Munster, Mr. Osburn .. 200
Do. do. Ulster .. 200
Wine-taster and keeper of the king's houses, Mr. Delafy .. 500
Governor of Cork, Mr. Jefferys .. 363
Governor of Duncannon Fort, Lieutenant-General Humphrey Gore .. 363
Remitted to Greenwich Hospital, 6d. per month for every sailor 400

PARLIAMENTARY STATISTICS.

The following list is compiled from what appears as given by the Establishment for the year 1727:—

That the Civil List Pensions amounted to £26,047 18s., which, clear of 4s. in the £, came to £25,858 6s. 4d., whereof we may very well suppose four parts in five to be spent abroad £23,070 13s. 1d.
That the military pensions amounted to £6409 15s.; two-thirds spent abroad £4272 3s. 4d.
That the establishment for general officers was £16,500 per annum; two-thirds spent abroad 11000
That the pay of all commissioned officers of eighteen battalions of foot, four regiments of horse, and six of dragoons (the force then in the kingdom) amounts, by an exact computation, to £116,508 per annum; one-fourth part thereof spent abroad 29127
That the establishment for half-pay officers amounted to £22900; a third part thereof spent abroad 7725
For officers' widows £3600 per annum; a third part spent abroad 1200
French pensions £12,800 per annum; a fifth part spent abroad 2560
Sent to England one year with another to buy recruit horses for ten regiments of horse and dragoons .. 4000
Spent in England in raising recruits for the Foot Service, per annum 2300
Pay remitted to Gibraltar for three regiments, exchanges included 30000
Perquisites on clothing 31 regiments at £500 each regiment yearly, comes to £15500; two-thirds thereof spent abroad 10333 6s. 8d.
Carried off yearly by adventurers to America, who may be reckoned to be 3000 in number, and to carry off £10 each, one with another 30000

MONIES REMITTED OUT OF THE KINGDOM ON THE ACCOUNT OF THE FOLLOWING:—

Insurance of shops and goods.
Assurance from fire.
For religious uses for Catholics.
For freight of shipping.
For newspapers from England.
For coach and saddle horses from England.
For gold and silver watches, precious stones, rich toys, fine Flanders lace, gold and silver lace, rich cloths, and furniture of all sorts, which are supposed not to appear in the Custom-house books.

As it was most difficult, or rather impossible, to ascertain the value of all those articles, it was reasonably supposed that they would amount to, at least, yearly, £20,000.

Total annual Main Drainage from Ireland £627,799 3s. 1d.

A GENERAL ABSTRACT OF THE QUANTITY OF MONEY DRAWN OUT OF THE NATION, YEARLY, VIZ.:—

By those of the first class £204,200 0 0
By those of the second class 91,800 0 0
By those of the third class 54,000 0 0
By those whose income is under £400 per an. .. 40,000 0 0
For the education of youth, law suits, attendance, and by dealers 33,000 0 0
By the pensioners on the civil list 27,070 0 0
By those on the military establishment 67,658 10 0
By the French pensioners 2,560 0 0
By adventurers to America 30,000 0 0
On account of several articles mentioned in the last list 20,000 0 0

Total annual Main Drainage from Ireland, as before £627,799 3 1

We hope the reproduction of these historical figures will prove instructive to our people; and though figures are naturally a dry subject, there is a volume of deep information to be extracted from the above somewhat curious but suggestive lists.

In 1773 efforts were made to tax absentees,

but they failed, as the principal landholders were belonging to that class. Of course they would not aid in passing a measure of self-taxation.

A short time before this, or in 1769, a pamphlet was published, giving detailed lists of the Irish absentees. By these lists it appears that property to the amount of £73,375 was owned by those who never visited Ireland; pensions to the extent of £371,900 were paid to persons who lived out of Ireland; property to the amount of £117,800 was owned by those who occasionally visited Ireland; and incomes to the extent of £72,200 were possessed by bishops and officials who generally lived out of Ireland.

Trade and manufactures were certain to suffer under such a general main drainage system as this. In 1775 the exportation of Irish commodities was prohibited, and, in consequence, the industry of the country was paralyzed, and terrible distress eventuated. The Irish debt rose to £994,890; yet the pension list was continued and paid to absentees.

A very remarkable work was published in 1799, entitled, "*The Commercial Restraints of Ireland Considered*." It is very well worthy of perusal. Though first appearing anonymously, it was afterwards found to be from the pen of Hely Hutchinson. For the further information of the reader, we may state that in an Appendix to his "*Tour in Ireland*," Arthur Young gives a list of absentees, whose receipts amounted to £732,000 yearly. This account was published in 1779, just before the Irish Parliamentary era. In the first year of the Irish Parliament, 1782, a very full and what has been considered a very perfect account was published, in which the names of the absentees belonging to Ireland are given in alphabetical order.

As the list is a most interesting and valuable one in many respects, viewed in relation to the time, or in other ways, we will, in a separate paper, give our readers the benefit of its reproduction, with whatever other reflections the subject matter may suggest.

There is no calm reasoning person, who knows aught of the sources of national wealth, whether he be a native or a foreigner, but must acknowledge that absenteeism has worked a terrible injury to the industrial prosperity of Ireland, and that it is one of the worst forms of *main drainage* that any country can suffer.

DUBLINIENSIS.

STONE, BRICK, CONCRETE, OR MUD.

A very instructive and interesting discussion resulted lately at the Athy Farmers' Club in consequence of the reading of the very useful paper by Mr. Hamilton, printed in our issue of to-day. The designs for labourers' cottages which have been built on the estate of the Duke of Leinster, though in advance of the present habitations of our agricultural labourers on the score of health, comfort and civilization, would seem still not to have come up to the special requirements of some of the members of the club who are stout advocates for the retention of the miraculous mud hovel—that antediluvian fossil or relic of pre-historic times. One member advocated stone, another concrete, but the Rev. Mr. Bagot was an uncompromising advocate for immortal mud, to wit—"I have been always a strong advocate for mud. It is a useful question for a landlord to consider whether he should build the walls of his cottages with mud or with stone. There is an instance not five miles from my place where a gentleman has a house, the walls of which are of mud, and which were built sixty years ago, and they are likely to last for three sixties more. It is an uncommonly comfortable house." To do the reverend gentleman justice he, however, said that the houses so built should be laid on stone foundations, and that they should also be slated, not thatched. Mr. Bagot, we are glad to add, agreed that Mr. Hamilton's plans were good and would prove useful. Dr. Kynsey was another advocate of the mud

cabin. He thought that good "mud walls and good thatch make a perfectly healthy dwelling, and you have it for one-fourth what it costs to build such a cottage as Mr. Hamilton refers to. And you could afford to make it what a poor man's cabin ought to be—with a kitchen for the use of the family to cook in; a bedroom for the man and his wife; and bedrooms, which should necessarily be distinct, for the boys and girls." The other observations of the doctor respecting morality and religion are unobjectionable; but his proposition about building "good mud cabins," as being a move in the right direction, is, we regret to say, a very backward move.

Mud cabins of all kinds, except those intended for pigs, and even these, ought to be "improved" off the face of the land, and relegated to the depths from which their material was excavated.

Away with mud cabin hovels and human piggeries, and let us have decent human habitations built of stone, brick, or concrete, and thus we will wipe away the demoralizing stigma so long attached to this nation in respect to the homes of our agricultural population!

We again commend the paper of Mr. Hamilton to the attention of all landlords and others truly and sincerely interested in the elevation of our people, socially, morally, and physically.

SANITARY MATTERS IN THE CITY AND PROVINCES.

With a new Sanitary Bill before the House of Commons, which we hope will be speedily passed into law, matters in the way of sanitary improvement are still moving very slowly both in our city and throughout the provinces. Very proper, yet very trivial, prosecutions are taking place in Dublin, with the usual amount of disreputable legal quibbles, where efforts are made to prove right wrong. In the Northern and Southern Divisional Police Courts fraudulent milk-dealers have been brought up for adding the perceptible quantity of twenty per cent. of water to their milk. We are unable to say whether the water was muddy, like our streets—if so, the purchasers were certain of receiving their weight if not their measure. It would seem that the acts of parliament bearing upon the prosecution of sellers of adulterated articles are somewhat defective, and the real delinquent may escape, who, though he or she may be the owner, are not the nominal sellers. In all instances, owners or sellers, vendors or adulterators, in every form, should be prosecuted.

It is worth while relating a little incident connected with the dealers in this milk. Dr. Cameron, the City Analyst, who was in attendance at one of the courts when an accused dealer was before the magistrates, stated that the fraud was mostly or chiefly committed upon the poor. The fraudulent milk-dealer blurted out, "I never give bad milk to poor people. I would sooner give it to a gentleman who would have a good dinner." The sanitary official who entrapped this God-fearing female milk-dealer and lover of the poor went with his face blackened to her shop—so the accused stated—and the poor honest woman, who never cheated the poor, took the officer for a "foundry man," and gave him his measure of milky mud!

Captain Freney, the noted Irish highwayman, was wont to declare that he "robbed the rich to serve the poor," and the song makes him say it was this course of action brought him to "his unhappy state on the gallows." If Mrs. Mary O'Neil, of Tighe-street, Mr. Peter O'Toole, of Temple Bar, Patrick Collins, of Chatham-street, and Mr. Molloy, of Duke-street, intend to reform their lives, we would advise them to give up imposing upon their neighbours, and never enter a church door again until they have washed their hands completely clean of all dishonest dealing.

In the matter of diseased meat and adulterated bread, teas, and sugars, we think our

Board of Health and Civic authorities are far behind in their duties.

Examples must be made of all fraudulent dealers in town and country, and if heavy fines will not do, imprisonment, without the option of fine, must be at once resorted to.

Why is not a raid made at once, at the instance of the Police Commissioners and the Castle authorities, on two or three noted medical quacks infesting this city, and plundering their dupes on false pretences? We repeat again that the newspapers in this city who print the advertisements of these scoundrels ought to be burned in effigy in the streets. The proprietors of these journals, we have no hesitation in saying, are nearly quite as bad as these swindlers themselves.

The exertions of the Corporation, so far as keeping the streets clean go, have scarcely been increased. Complaints reach us from all sides of the city. Temporary hospital accommodation is being provided at a very slow pace. Precautions are seldom adopted, and it is only when an epidemic breaks out our Corporation are pushed into any sort of action. On the eve of a large *main drainage* scheme the Corporation hopes to be excused from looking after minor drains connected with houses, yards, and back slums.

In some of the towns of the province of Leinster the Town Commissioners are paying closer attention to the sewers and the cess-pools; and in Belfast, Drogheda and Cork, of late there is some activity shown to do what is urgently required.

With the passing of the new bill increased powers and facilities will be given all over Great Britain and Ireland; but in the meantime all sanitary efforts, small or large, should not be relaxed in any particular.

BOOKS RECEIVED.

Atchley's Civil Engineer's and Contractor's Estimate and Price Book for Home and Foreign Service. By W. Davis Haskoll, C.E. London: Lockwood and Co., Stationers'-Hall-Court.

We have again great pleasure in highly commending this work. No engineer's or contractor's office should be without it, particularly when it is to be had for the moderate price of six shillings. It comprises tables and prices for every class of works a contractor can be called upon to tender for.

Cassell's Popular Educator. New Edition, revised to the present date. London: Cassell, Petter, and Galpin.

A SERIAL such as this should indeed be "popular," for it contains matters suited to the capacities of all classes in the community. In the great efforts now being made to educate the people of our country, Messrs. Cassell have surely done their part, in the issuing of this and similar publications at the lowest possible prices. We wish them success.

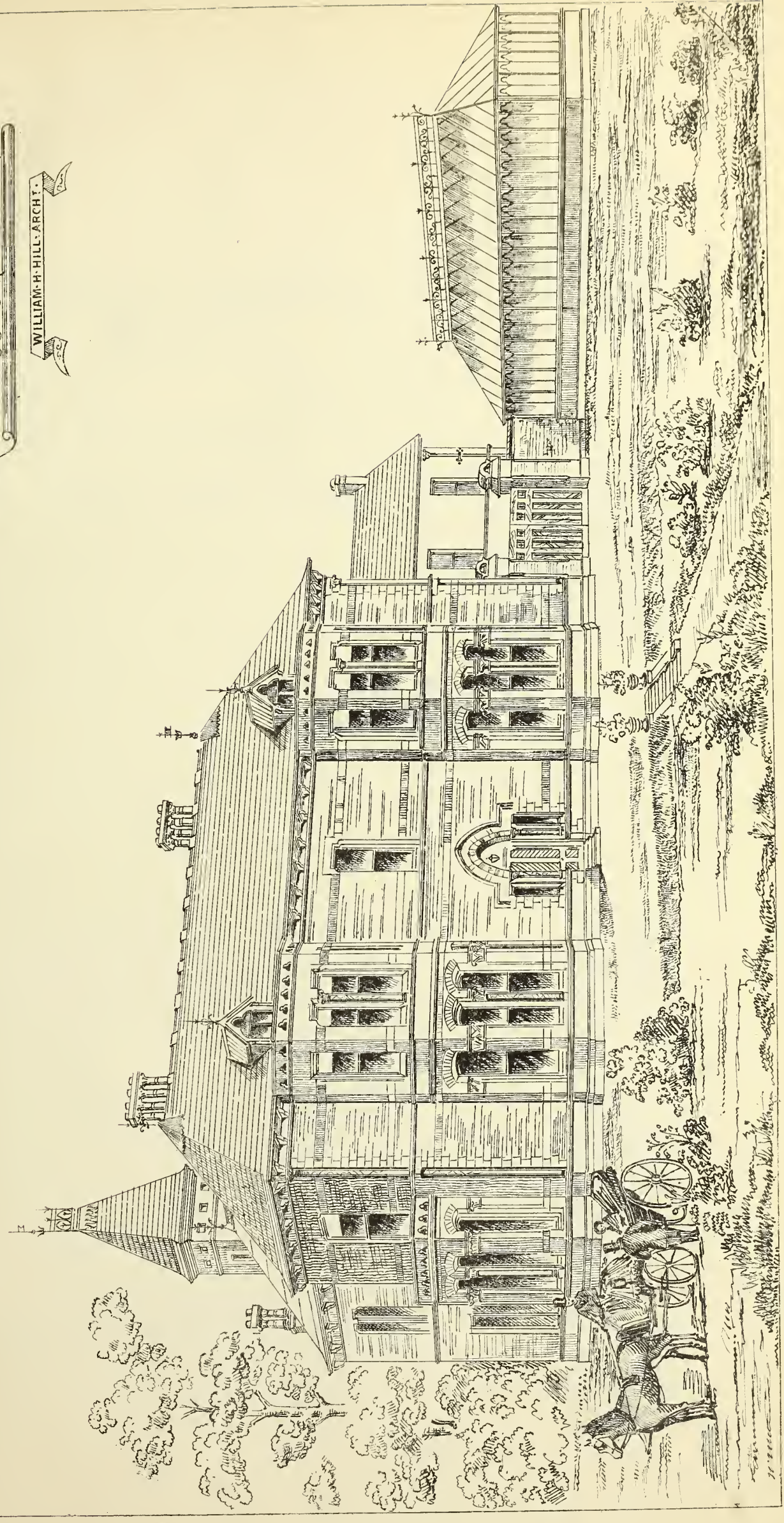
The American Builder. Charles D. Lakey. Chicago.

THE January and February parts of this journal are to hand. In the fearful conflagration which a few months ago left Chicago in ruins, the premises and plant of our contemporary did not escape. We are glad to find that they have been so soon resuscitated, and the publication resumed.

DEATH OF MR. JOHN POOLE.—A literary man, well known half a century ago, but with whose name probably few of the present generation are acquainted, Mr. John Poole, died at his residence, in the Kentish-town-road, on Monday last. His history of "Little Pedlington," written with much dry humour and in a style of banter to which readers at that time were unaccustomed, obtained a large share of popularity; but Mr. Poole's claim to reputation rests principally on his comedy of *Paul Pry*, which was produced in 1825, with Mr. Liston in the character of the hero. Mr. Poole, who was nearly 80 years of age, was long in the receipt of a pension from the Civil List.

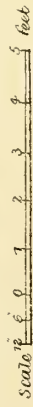
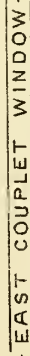
KILMASTOODA HOUSE
CORK

WILLIAM H. HILL ARCHT.

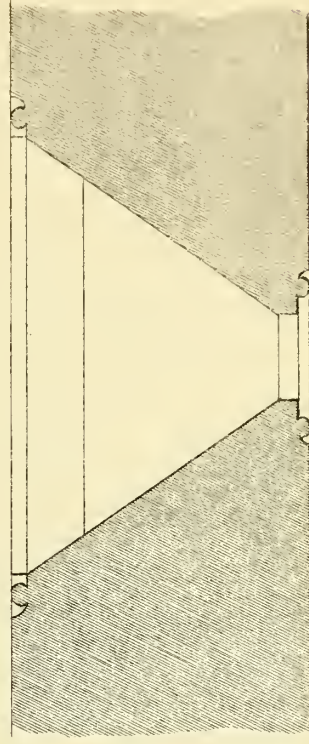


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SOCIETY FOR THE ENCOURAGEMENT OF THE FINE ARTS.

THE second *conversazione* of the session in connection with this society took place at the Flemish Gallery, St. James's-street, London, a few days since. The fine collection of pictures now on view in the gallery proved a great attraction, and drew forth many expressions of admiration from the visitors, among whom were Professor Ansted, Drs. Hyde Clarke, Hiller, Zeffi, Guidal, Brietsche, Attischul, Major Burgess, Captains Thomson, Giles, Mercier; Messrs. Frederick Chatterton, Theed, Phene, Rae Browne, Nodskow, Coyle, &c. The chairman of the society, Captain J. Britten, and Mr. George Browning, the honorary secretary, supported by Mr. Henry Tidey, V.P., Mr. Houston, Mr. Heraud, and many other members of the council, received the guests as they arrived. Selections of vocal and instrumental music, from the works of Beethoven, Rossini, Mendelssohn, Bach, Donizetti, and other composers, were given during the evening. Herr Ludwig Strauss gave a brilliant execution on the violin. In the intervals the company promenaded the *salons*, and inspected the pictures on view.

LIFE IN THE SEWERS.

SOME statistics were lately published by Mr. Brewer, showing the immunity from contagion experienced by the sewer men or scavengers of St. George's parish in London. His argument, if accepted, would lead many people to draw wrong conclusions, not only to their own danger, but that of others. We are glad to see his opinions combated by the *British Medical Journal*. Men, of course, who are inured to hardship can bear hardships better than others who are not so circumstanced. People may accustom themselves to take a slow poison for years without perhaps perceptibly shortening their lives; but poison is poison, and dangerous, no matter what way it is taken, whether it is inhaled or eaten, and ought therefore to be avoided in every possible manner. In this city, as well as in London and other towns and cities, we have often, in spite of ourselves, been obliged to inhale deadly poison which, if we had to breathe in greater quantities, would no doubt make sad havoc in our midst. For these blessings we are indebted to an indolent civic authority and its equally indolent officials. The journal alluded to considers it would be a serious misfortune at the present time if incorrect deductions should be drawn from Mr. Brewer's recent statistics of the health of the scavengers of St. George's. The occurrence of 16 cases of fever in the year among 283 men employed in the metropolitan sewers, does not imply their possession of any remarkable degree of immunity. But the relative safety of men working among the fomes of filth-fever has long been known. It belongs to a class of causes which operate widely in saving us from the consequences of our sanitary neglect, but which should not give us any feeling of false and undue security. The law of immunity may be expressed thus: The intensity of the effect on the body of any cause of physiological irritation is in an inverse ratio to the frequency of its application. After three or four continuous whiffs, even a bottle of sweet perfume will temporarily cease to excite its odoriferous impressions. Those who live among decaying animal matter are less liable to attacks of typhoid during the epidemic periods than others. Examples in point are quoted by Tweedie, Murchison, Paget, and, indeed, by all medical officers. Similar facts are recorded in respect to cholera and other zymotic diseases. The principle is essentially that which underlies the protective power of vaccination against the more formidable attacks of small-pox. New comers to a house pregnant with the typhoid poison are, it has been repeatedly observed, most likely to take the disease; and it will be noticed that the five persons taken with typhoid fever at Londesborough Lodge were all new comers. It would, of course, be very unwise to infer that these causes may in any degree be neglected, or that we could safely rely upon the mortal process of season-

ing our whole population. They would be annually decimated in the operation. Alcoholic drinks are far from affording any protection; their influence is of the opposite kind. They render those who habitually use them more liable to zymotic diseases. Those who are addicted to drinking hard are also sooner struck down when once attacked. Habitual drunkards may escape for years any form of epidemic disease; but how few of them die natural deaths! If they are not taken off by some severe accident, delirium tremens, or absolute madness, they are sure to succumb, at one time or another, to contagious diseases in one form or another. Scavengers, we agree with our medical contemporaries, are not proof against contagion, though they may run the gauntlet for years.

CIVIC LYRICS.—No. VIII.

THE GOVERNMENT AUDITOR.

"He be hanged!"—these were the words
when Finlay was announced;
Some members swore, some members cursed,
while other members bounced.
"We'll turn him out, we'll send him back,
he shan't come in at all;
We're masters of the Civic purse, and
of the City Hall."

Ho! haste ye all, ye scavengers,
with shovels and with brooms,
The tide is rising, and the rats
are creeping from the tombs;
The Liffey smells—it often smelt
before, and will again,—
But, worse than that, more ways than one,
there's now a stagnant drain.

Come, gentlemen, give up the books,
the ledgers and receipts,
And let us see what's buried deep
beneath their winding sheets.
Dead men tell no tales, they say,
but living men can boast
In this old sainted land that they
have often seen a ghost.

"There's nothing wrong in these accounts!"
but little Finlay recked,
He knows the men who passed the bills,
and those who signed the cheques.
It does not change his mind the least,
with harpies on his track,
He'll have the money paid away
now paid as quickly back.

There are items, too, extending back,
for deputations sent
To Downing-street to wait upon
the Inland Government.
"Hotel," "cab-hire," "refreshments,"
turtle, port, and sack
For five tomfools who went away
as wise as they came back.

"Law expenses paid to Smyth,"
on "Waterworks" and "Gas,"
Are very large—so Finlay says,
and doubts if it can pass;
And there are bills a legion,
"petty job" accounts,
Which, in the aggregate, to
something huge amounts.

The Treasurer is upright,
as everybody knows;
The Town Clerk is straightforward
wherever that he goes;
The Engineer a downright far-
soreseeing man;
And Bazalgette—who blames him
for getting all he can?

Who murdered time? Who plucked the goose
that laid the golden eggs?
Until the Civic body stood
upon two wooden legs,
Crippled both in purse and limb—
a Pariah in name;
The butt and fag of scorn,
and the very dregs of shame.

CIVIS.

FINE ART AND QUEEN'S PROCESSIONS.

THE city of London developed a large amount of rough handicraft and gaudy theatric decoration on Tuesday last, but very little real artistic embellishment. It was questionable taste to expend such a vast sum of money in gilding and painting doomed Temple Bar; and the huge triumphal arch at the foot of Ludgate-hill might be described to be somewhat "grand, gothic and ungainly." It was hardly finished in time, and it narrowly escaped conflagration during the day from some of the gas pipes attached. We witnessed both the procession and the streets before and after, and though we must bestow the proper meed of praise for the public spirit exhibited in view and on the occasion, we feel bound to record the fact that the art

display, as shown in the manifold decorations, did not at all reach the standard of merit that we might reasonably expect in one of the greatest capitals of the world.

The festooning, painting, gilding, and decorations were profuse enough, and, likely, most costly, as the work had to be executed in a hurry. We believe, in several instances, no expense was spared, but displays of fine art or art-work were the exception, not the rule, on Thanksgiving Day in the city of London. Apart from the art view of the question, the procession and all its surroundings, and the subsequent illumination at night, was most creditable.

PUBLIC MARKETS.

WE spoke on a former occasion of the disgraceful state of all our public markets—root, fruit, and meat,—but our Corporation are more intent on political wrangles than sanitary improvements. In London at the present moment and for some time every effort has been making to add to the extent and comfort of the public markets, not alone for the sake of the seller and buyer, but for the sake, pleasure, and profit of the public improvement. There is another addition to be added to the London Smithfield Market; and at one of the late meetings of the Council the "Markets Improvement Committee," in their recommendations based upon the fact that the present new market, which was opened three years ago, had been found insufficient as regarded space to meet the growing requirements of the public and the trade; that they were constantly receiving applications both from the present salesmen and "outsiders" for additional accommodation, to which they were unable to accede; and that in consequence the persons so refused were making arrangements whereby they might have the privilege of selling in the building. These people, the committee argued, would gladly avail themselves of the opportunity to take shops in the proposed annexe to the market, and the increased competition would be productive of beneficial results as far as the public were concerned. The land adjoining the market upon which the building was sought to be erected belonged to the Corporation, and was worth £80,000; the cost of erection would be £87,500; and 64 additional shops would thus be formed. The estimated revenue was £10,903, and the annual expenditure £10,822. The proposal was hotly opposed, on the ground that the market was not required, and would not prove financially successful. Mr. Cockerell said the Corporation had incurred liabilities in respect of the cattle market to the extent of £443,000; of the meat and poultry market and the adjacent land, £1,075,000; the foreign cattle market, £210,000; and Billingsgate and Leadenhall markets, £175,000; and the net loss on markets had been £9,662 last year. He protested against any more money being spent in this way. Mr. Deputy Fry and Mr. H. A. Isaacs (chairman of the Vacant Land Committee) expressed concurrence with the recommendations in the report, the latter gentleman stating that the trade in the market during the past six weeks exceeded by 4,600 tons the quantity sold in the corresponding period in 1869, and denied that the Corporation, with a rent roll of £79,000, were not fully able to erect the market. The discussion was continued by Mr. Colls, Mr. Woodley, and Mr. Harris. Eventually the report of the committee was carried by a majority of 31, in a court of 119 members, and it was referred back for execution.

Surely, with the example of every chief town in Great Britain almost before them as well as London, the Corporation of Dublin ought to do something towards providing proper markets for the citizens of Dublin. The old markets of this city have outgrown their uses. Ill designed, badly drained, narrow, and almost in every way bad, they are past reform, but not reconstruction or substitution.

THE LABOURER AND HIS DWELLING.*

THE condition of the labourer and his cottage are so closely connected that I have thought it desirable, both on the previous occasion when I addressed you and now, to promote discussion upon them together. I long ago used to urge upon the Royal Agricultural Society that the publication of plans of cottages, though of some use, was not of as much use as it might be if accompanied by specifications and estimates. The objection generally taken was that prices varied so much in different parts of the country, that it could be no accurate guide. This objection, I think, carries little weight, and his Grace the Duke of Leinster concurs with me in thinking that good may be effected by showing exactly what has been done on his estate. I have given plans and quantities, and also the prices of the materials, including doors, windows, and other parts of the internal fittings, as estimated for by Messrs. Thomas and Charles Martin, of the North Wall Saw Mills, including delivery on railway or canal boat, and have allowed what I consider enough for the average cost of carriage and contractors' profits.

The plans are before you, and you can see how easy it is to adapt the estimates to different requirements and circumstances. Something may be saved by the farmer lending his assistance in drawing materials, excavating foundations, &c. But the best way is to take what are really the contract prices for such work, which are given in different parts of the country, and save upon them if you can, but by no means to injure the comfort and permanent stability of the building.

I look upon a great many statements as to the cost of cottage building as entirely fallacious. One architect sent me a lithographed plan of a cottage, with an estimate, in which the masonry was set down as to be done for three shillings per Irish perch. I never, even in the old cheap times, could get it done for less than five shillings; so that I think you will agree with me that there was no great use in such an estimate. The cheapest and best cottages I have seen were those which that excellent landlord, Lord Bessborough, referred to in his evidence before the Union Rating Committee as having cost only £90 for the double cottage. There were, however, special circumstances in this case.

Material was at hand, the labourers and tradesmen were residents in the locality; the roof was of the small, irregular, Newtownbarr slates, ranging about 6in. by 8in., and costing some five or six shillings per hundred. They were not ceiled, and had mortar floors. This is a great step in advance of the old hovel; but I cannot help thinking that it is better to pay a little more, and have a comfortable and lasting cottage. In my plans the pencil can be drawn against anything considered redundant, or the price can be reduced or varied if the circumstances of the locality require it. I hope that, while the plans are invaluable to me in arranging the work to be done on his Grace's estate, they may assist others in coming to a right conclusion as to what is absolutely necessary to insure comfort and permanence.

Before making any observations on the mode in which the connection between the labourer and his cottage may be best effected, I shall venture on some observations on the state of the market for agricultural labourers. Let no one suspect me of undervaluing the good qualities of my countrymen while alluding to some defects in their natural character. There must be some radical defect in the circumstances in which they are placed, to render them notoriously inferior as labourers or artisans in their own country to what they are when they have emigrated elsewhere. I believe I am correct in stating that both in England, Scotland, and the United States the Irishman is hardworking and skilful, and of good temper and humour, but that he seldom pushes himself as far forward or into as high places of trust and superintendence as the English or Scotchman. I have seen this myself in the Manchester and Glasgow manufactories, and heard from residents in New York that it is very remarkable how the Scotch and German servants push over the heads of the Irish, who are perhaps too contented with the duties and earnings of mediocrity. There may be something in the genial but careless character that makes the Irishman so distinct from the others that—

"Should you meet him outward faring, boy,
In Lapland's snow, or Chili's glow,
You'd say—'What news from Erin, boy?'"

I cannot, however, look upon the faults of the labourer in this country as entirely his own. I think much may be due to the position he is placed in. You know how he can work upon a spurt when

hay or corn is in danger; but what heart can a man have in his work when he sees no difference made between the really skilful and honest and the scheming, dishonest workman? I am sure that you, practical farmers, will agree with me that there is this difference between the English and Scotch labourers and the Irish, that the former will, as a general rule, do what they are set to do fairly, without being overlooked; that they understand what eye-service is, and would be affronted if accused of it, and consider it dishonest not to do the work they have contracted to do. But that, on the other hand, the Irish labourers require a ganger to be constantly over them, and, if not sharply looked after, are very apt to diminish the size of their spadeful, and perhaps sit on a bank and take a smoke, and if the mistress of the house comes across them in her walks, say, in an imploring tone, "Ah, sure you would not tell on us." Is it any wonder that the farmer gets as many as he can together, never leaves them till the work is done, and then rests from the necessity for this troublesome superintendence until he has some other great occasion for doing a job of work?

There are faults upon both sides, and our earnest endeavour ought to be to try and correct them.

The tenant farmer should have the means of making his labourer so comfortable that he will have an interest in working for him honestly and with a will; and in order that he may be brought to feel and do his duty, it is essential that, while in the farmer's service, he should be completely dependent upon him—free to accept any better situation, but bound by his contract to fulfil the duties required while in his present one.

Mr. Justice Lawson says—"I do not believe in the possibility of planting every labourer in his own homestead, as lately suggested, but *much may be done in that direction*. The farming classes having now obtained security of tenure for themselves, should not object to the extension of somewhat similar advantages to the labourers."

There seems to me to be a great fallacy here, and that nothing would tend more to prevent farmers from building good cottages than the idea that any legislation such as Mr. Lawson shadows forth could make the labourer independent of his employer. Any hold given to the labourer on his cottage and garden other than the honest endeavours to make himself useful to his employer would have a most mischievous tendency. I know that one of the greatest obstacles to landlords building suitable cottages is the fear lest legislation should create, as against them, rights which they never contemplated giving themselves. No; the free lances, or rather free spades, of the labouring population, of which it is desirable that there should be a proportion to regulate the market for labour, should be located in the villages and towns. But the tenant farmer must be free to select the best men he can get, and they must be bound together by mutual interest and good offices—free to terminate the engagement when either fails in fulfilling his side of the contract.

This is not merely a question of the labourers' and the farmers' comfort and well-being; it is a great national question. Look at the hovels that you see the labourers inhabiting; see the want of proper food in them; see the prevalence of disease; see the ravages caused by intemperance, the refuge of hopelessness and care, and ask yourselves if any legislation can produce content in their occupiers? And if the whole foundation of the fabric of society has cause for discontent, can you wonder that crime follows close on misery? Look, again, at the lands. Is not their due cultivation of national importance? Is it not one of the principal reasons that much land is lying comparatively waste, which is capable of producing food largely, that the labourer is not employed upon it? It is a well-known fact that in those districts where the land is properly cultivated there is at least one constant labourer to every fifty acres. With less human power the energies of the soil cannot be drawn forth, and you must lay yourselves out for pushing on in the art of production, or you will fall out of the ranks into poverty, and fail both in your duty to yourselves and your country; and, as I have told you before, do not believe in the constant outcry of the scarcity of labourers. I believe that they are to be had on terms remunerative to the farmer. I know of one district where the tenants' constant complaint to me has been that the labourers had emigrated to such a degree that they could not work their farms properly for want of them. I had occasion to set on a work of drainage in that locality, and had no difficulty in getting nearly one hundred men, most of whom would otherwise have been left in idleness through the whole winter season. They are getting fair wages, and doing good work. I must press on you again and again, as I have done often before, that there is no use in thinking of going on with casual labour.

You must keep a man and his family in comfort all the year round, if you wish to claim honest labour from him. Lay yourselves out for this, and I have no doubt but that your landlords will throw themselves cordially into the work of assisting you. I can answer for the noble owner of this property that he will do his utmost to help you; but I think it essential that, before a cottage is built, there should be a clear understanding, and perhaps some voluntary contract, between the landlord and tenant that it is to be used for the purpose of keeping the labourer in comfort and constant employment. There might otherwise be danger in the outlay of the landlord being used merely to diminish the outlay of the tenant on still casual labour.

Assuming, therefore, that it is a matter of the most vital importance that labourers sufficient to cultivate the soil to the best advantage should be comfortably housed, let us consider how that may be best done. I think that since the passing of the Land Act it will facilitate future dealings with the land if the landlord himself undertakes the buildings; and if it is not convenient to him to spare the money, he should have ample powers of borrowing from the Government; and, therefore, I think it fair to assume that, whether it be his own money or borrowed money, the payment of £6 10s. per cent. for twenty-two years will extinguish the debt. Now, I have frequently heard landlords say that they expect a building interest from the labourer in the shape of annual rent. This it is manifestly impossible for the labourer to pay; nor is it just, for the landlord, at the end of the twenty-two years, has the whole reversion of the value of the cottage, which, if permanently built and kept in repair, ought to be scarcely diminished. Besides, it will be allowed by any tenant that he would pay a higher rent for a farm with comfortable labourers' cottages on it than he would if they were merely wretched hovels. Again, who could doubt that one of the features that would enhance the value of an estate, if brought into the market for sale, would be its being well circumstanced as to the labouring population? I do not, therefore, think that it is to the labourer that the landlord should look for interest for his outlay. My own opinion, and, I may add, that of the Duke of Leinster is, that where a tenant wants a good cottage, and engages to give the labourer he puts into it the means of living in comfort, and not charge him any rent, four per cent. would be sufficient for the tenant to pay, the tenant covenanting also to keep the premises in repair. I think he would find it a cheap bargain, and that the landlord would be amply repaid in the general improvement of the value of his estate. If any great move in this direction took place, the effect would be to cull out and offer an inducement to stay in the country to all the best workmen; and if any will not work, we can well spare them to America. What we want to encourage is the pride of independence, arising out of honest self-exertion; and the man who knows himself to be a first-rate ploughman, drainer, or cattleman, will feel that he has been given the best cottage and allotment, not as a matter of favour, but as a well-earned right.

The legislation with respect to the tenure of labourers' cottages has been rather complicated, owing to its cumulative character, embodied, or rather repeated, with slight alterations, in several existing acts of parliament.

The Summary Jurisdiction Act of 1851 provides for the recovery, under warrant from the magistrates, of houses held in any market town for a period not exceeding one month, and at a rent not exceeding one pound per month. By a subsequent Act, passed in 1868, the local authorities in corporate towns, or those having town commissioners, have power to present such houses as are in a condition or state dangerous to health, or unfit for human habitation; and if the landlord does not repair them, the local authorities can improve them, and charge the landlord with the cost. But then, on the other hand, the landlord has the option of pulling them down, instead of repairing them, and the fear of burdening the rates leads to this Act being seldom put in force. Something, however, might, I think, still be done by constituting some local authority, such as a county sanitary inspector, who would bring the cases where houses subject to rent are unfit for human habitation before the magistrates, with appeal to the Quarter Sessions, and obtain an order for having them put into a proper state of repair at the rent receiver's expense, but without giving him the alternative of eviction and levelling, except on paying an amount of compensation sufficient to house the occupants elsewhere.

The Cottier Tenant (Ireland) Act, promoted by Sir William Somerville, now Lord Athlunney, was passed in 1856. It applies to dwelling-houses situated anywhere without more than half an acre, if any, of land held therewith. It gives the land-

* Read by C. W. Hamilton, Esq., J.P., at the meeting of the Athy Farmers' Club.

lord power of recovering possession on short notice, provided that the tenement is held by written agreement, that the tenure is for a defined period not exceeding a year, the rent not exceeding 12s. per month; that it has a sufficient chimney, and at least two rooms and a privy are provided, and the premises kept in repair by the landlord.

The faults in this Act are, I think, that two rooms are not sufficient for a family, and that the use of thatch is not excluded, both on account of agricultural waste and want of permanency.

This was followed by an Act passed in 1860, enabling the Board of Works to grant loans for the purpose of erecting such cottages. This Act expires during either this or the next session of Parliament; the words fixing the date of expiry seem rather ambiguous.

Then came the Act of 1861—the Landlord and Tenant Law Amendment Act, by which summary proceedings for the recovery of cottier premises may be had before two magistrates at petty sessions, provided that the tenement, wherever situated, consists of a dwelling-house or cottage without land, or with any portion of land not exceeding half a statute acre, held under a written agreement, at a rent not exceeding five pounds per annum, for one month, or from month to month, or for a shorter period, where the landlord undertakes, by the agreement, to keep the dwelling-house or cottage in tenable condition or repair. Thus we have the anomaly of three Acts on the same subject all in force and differing but little. They are, however, sufficient for the purpose. The recovery of possession in the last-mentioned Act also applies to premises held by servants, herds, or caretakers. My own opinion is that the best tenure for a labourer's cottage is his holding it with a small garden, free of rent, as part of his wages, when, if he misconducts himself, or refuses to work, possession may be had, without notice to quit, on the order of two magistrates in petty sessions. The only provision in the Land Act affecting labourers' cottages is to take out the clause for compensation on eviction where the cottage allotment does not exceed one quarter of an acre. As to what the Government could do to encourage the building of good cottages, I do not see that they could do more than facilitate the granting of loans to those landlords who are unable to meet the expenditure out of the income, which, however, I think every landlord ought to be well able to do.

There must be an Act passed to replace the Act of 1860, now expiring, and some stimulus might be given if the term of repayment was extended in the same way that it has been as to loans for the purchase of the tithe rent-charge; but then the reversion of the value of the building would be so far postponed that the landlord would probably charge the tenant with the whole of the annual payment.

The conditions for the loan ought to be that the cottage should be built permanently and well, with stone walls and slate roof, and the upper floor ceiled. Where these conditions are observed, the borrower should have ample latitude to vary the construction as may best suit his own ideas. There is much unnecessary delay in satisfying the technical or legal requirements of the Board of Works, especially the lodgment of the landlord's title-deeds, which might, I think, be fairly dispensed with, as the land is liable to the charge for the buildings, whoever may be owners or occupiers. Indeed I think that every farmer who holds above one hundred acres should have the power of borrowing from the Board of Works for the erection of one labourer's cottage to every fifty acres, exclusive of those intended for steward and herd. At present he would be enabled to get compensation under the Land Act for building cottages *suitable to the holding* as he is for the erection of farm-offices: any objection to thus encouraging an excessive population would be easily limited under the control of the Board of Works. But there should, again, be some control over that body, as it is scarcely to be expected that officers on fixed salaries should not be rather averse to giving themselves additional trouble. I look upon this in a national point of view; for, as it is the interest of the community that the land should be brought into the most highly-productive state, the farmer ought not to be prevented from obtaining the means of cultivating it properly. The census, while minute and perhaps vexatious in recording the ages of old maids, has not yet given us the number of agricultural labourers in Ireland, a matter of paramount importance for us to know; but I rather think that if the quality were better, the quantity would be not more than sufficient to bring all the arable land into a fair state of cultivation.

I wish I could make you feel as strongly as I feel that the prosperity of Ireland and of Irishmen depends on individual exertion—each man trying to do his duty in his own place. I wish I could persuade you that the destinies of this country are

not in the hands of legislators to play with for party purposes, or of the corrupt and self-seeking agitators, whom for the last fifty years you have seen enough of to be able to see through, but that they are in your own hands, and lie at your own doors. Do not look abroad for faults and shortcomings in others. "Learn to improve yourselves to-day, and then improve your friends to-morrow." There is not a farmer in Ireland that has not the same opportunity of making his land productive enough to support himself, as well as the labourer in his employment in comfort and happiness, as they have in England and Scotland—the rents are lower, the soil and climate better.

The demand for beef and mutton is greatly increasing, while, unfortunately, our stock seems to be diminishing. Lay yourselves out for breeding a much larger number, and then you will want more labour, and feel more strongly the direct interest you have yourselves in making the labourer happy and comfortable. We are too apt to think that each man should be for himself, and steadily pursue his own interests; but this is not the case. From the highest in the land to the lowest, there are a series of connecting links. We are all more or less dependent on each other for comfort and happiness, and should feel that our liberties under the constitution are the same, and that neither political nor religious differences should hinder our cordial co-operation in promoting each others' temporal welfare.

THE DRAINAGE OF THE CITY OF LONDON AND MR. BAZALGETTE.

LAST week we had to do with Mr. Bazalgette and the Borough Engineer about the Main Drainage of Dublin. This week we have a word or two to say about Mr. Bazalgette and the Engineer of the city of London on the main drainage. Mr. Bazalgette is the Engineer of the Metropolitan Board of Works, which is supposed to manage all the drainage and sewerage operations of the metropolis of London, exclusive of the city proper, which is managed by the Corporation under different courts, and the Corporation Engineer, Mr. Haywood. It was found lately that after the enormous sums that were expended by the Metropolitan Board in carrying out the drainage of London, and in intercepting the sewers, that numerous ones still empty their foul deposits into the Thames. The subject, being brought before the Corporation, was there discussed, and Mr. Haywood was ordered to draw up a report upon the subject. Mr. Bazalgette denied some of the statements of Mr. Haywood's first report, and asserted that the sewers and drains complained of were mere trivial drains of hardly any length, and that the work of the Metropolitan Board was complete.

Here is Mr. Haywood's reply, which will not be without some passing interest to the citizens of Dublin:—

TO THE HONOURABLE THE COMMISSIONERS OF SEWERS OF THE CITY OF LONDON.

GENTLEMEN,—My attention has been called to a report of Mr. J. W. Bazalgette, the engineer to the Metropolitan Board of Works, in reference to my recent report upon this subject, and inasmuch as it seems to me that the unavoidable inference from his report is that the statements which I laid before you are incorrect, and very erroneous opinions may be thus generated, I feel it incumbent upon me to give some further explanation of the matter. I confine myself here to those points in his report which have a direct bearing upon the question.

The engineer to the Board states that nearly one-half of the area of the city has been intercepted. I find that 26 per cent., or rather more than one-fourth of the area is intercepted.

The report states: "of the nine called main sewers, only three are, in fact, main lines, from one of which the whole, and from the two others nearly four-fifths of the sewage has been intercepted," and that "the other six are comparatively of a very unimportant character."

To this I have to reply that although three only are under the management of the Metropolitan Board as main sewers, yet that the whole are main sewers according to the usual meaning of the term, inasmuch as each of them receives the sewage from various other sewers, and has a separate outlet into the river; the three specially referred to run through the city, and have, I assume, been intercepted by the middle level sewer, north of the city, but my report very explicitly refers to the sewers which are within, and the sewage which is produced within

the city of London only, and, I repeat, that the whole of the nine sewers were discharging into the river at the time I made my report.

The report then states, that "the nineteen, called minor sewers, are relatively insignificant," which statement is perfectly correct.

It then states, that of the 534, called district sewers, "upwards of 90 have been intercepted," and also "that a large proportion of the remainder are mere drains, taking the sewage of single courts, mews, yards, alleys, and the like," to which I have to reply, that none of the sewers (which are all given by me in alphabetical order) were intercepted, but that the whole of them were at that time, and, I believe, still are, discharging into the Thames, and must do so until the nine main sewers, before referred to, are connected in some way with the low level sewer. It is quite true that some of these sewers only drain courts and small places, but the whole have an aggregate length of about 32 miles. And it may be stated that the unintercepted area of the city comprehends the most important quarters, and those which are the most densely inhabited during the entire day, and from calculations, based upon the number of persons known to reside the whole day in the city, and of those who enter and leave the city daily, I believe I am within the mark when I state that the excreta of at least 200,000 persons is discharged daily into the Thames from these 32 miles of sewers.

It then states that he has "experienced considerable difficulty in preparing his report for the want of anything like an accurate plan of the city sewers," and that "he has applied to me for an accurate plan of the sewers." And from which it will doubtless be inferred that the reason why the interception has not been completed is attributable to want of information to be supplied by me; and I accordingly have to reply that the first request made for information was upon the 26th of January last, and that on the 8th of February last I supplied information relating, I believe, to every sewer with which there is the remotest probability of the Metropolitan Board interfering for interception purposes; but the request was for information relating to every one of the sewers in the entire city, with the majority of which the Metropolitan Board can have no concern, inasmuch as the great bulk of the sewage discharged by the sewers can be at once intercepted by connecting with the intercepting sewer the main lines, which have been for sixteen years under the control of the board, and of which, to my knowledge, they have had for years accurate plans; and, moreover, it may be remarked that the Fleet and Whitefriars Dock sewers have been intercepted without reference to me, or any demand for such information with regard to the district sewers they serve as is now made for the whole city.

The design for the northern sewage interception was completed by the Engineer to the Board and myself in 1853, and the contract for the sewer through the city was let by the Board in 1869, and their engineer must therefore have known for many years past what information he would require, and had he applied years, or even months ago, would have had no difficulty in getting all that was requisite for his purpose. He refers in his report to the sewers unsurveyed in the city, and I may remark with respect to them that sufficient documents exist for all the purposes of the Commission, and as none of them will need to be touched by the Metropolitan Board it does not affect the consideration of this question at all.

It may be expedient here to state that my report of the 12th January was prepared in obedience to a resolution of the commission who had been directed to report to the Court of Common Council upon the matter, and was not voluntarily prepared and presented by me.

Under all circumstances, the Commission may think it desirable to have some independent authority to investigate the statements I have made, and it will afford me the greatest pleasure to place all the details before him.—I have the honour to remain, gentlemen, your most obedient servant,

WILLIAM HAYWOOD,
Engineer and Surveyor.

In concluding his letter, Mr. Haywood makes a very honest suggestion, that he is willing that all his statements shall be put to proof, and that he is ready to afford every facility for the purpose.

There is no Metropolitan Board in Dublin. The Corporation is the Corporation, and Mr. Parke Neville has not got any opportunity yet of disagreeing with the opinions of his co-labouring engineer. The main drainage of Dublin, as far as sewerage is concerned, is not begun yet, though the real main drainage of the city and county dates back for

some centuries. Ere the engineering work of the projected main drainage of Dublin ends many heads will be grey, and the writer of these remarks will have no longer need to quarrel with the Corporation of Dublin and its consulting engineer.

CORRESPONDENCE.

"A JUNIOR INSTITUTE OF ARCHITECTS."

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I was delighted to find in your issue of the 15th inst. an article relative to the establishment of a "Junior Architectural Club," or institute. It is, indeed, high time that a want which has been so long felt by the majority of the students of architecture should find attention at the hands of those whom it most concerns. It has often surprised me that the junior members of the profession did not concert some measure for the formation of an association for their mutual benefit and improvement. There are in many of the continental cities such clubs as your correspondent, "Junior Member of the Institute," proposes to start in Dublin. In America there are State colleges wherein the student of architecture may study those branches of learning necessary for the pursuit of his profession, at a very trifling cost; but in Ireland the student has to labor under difficulties unknown to the members of any other profession. He has neither library nor course of studies within his reach; if he should want information he has no opportunity of acquiring it, unless it should be through the agency of books, which are often so enormously expensive as to be far beyond his reach. Now all this can be remedied by a little exertion on the part of my fellow-students. A Club might be formed, having weekly meetings, lectures, classes, &c., and after a while a library and museum might be established, both of which would be boons to students. If all the junior architects, assistants, and pupils in Dublin would combine, nothing would be more feasible than to establish a Club worthy of the support of all classes of the profession, as proposed by your respected correspondent, "Junior Member of the Institute." I would propose, through the columns of your influential journal, that all those members of the profession who approve of the scheme should assist in the good work by immediately co-operating with "A Junior Member" and his friends. I and many of my friends have already sent in our names, and I think it would be very advisable to call a meeting of intending members, to appoint a temporary committee of management, and to arrange a plan of action. Begging to be excused for thus trespassing on your valuable space, I have the honor to remain, sir, your obedient servant,

February 24, 1872.

STUDENT.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I have just read the two letters which appeared in your issue of the 15th inst. with regard to the Royal Institute of the Architects of Ireland, one of which refers to the very deplorable state of the Institute, as far as the reading of papers and the meetings are concerned; and the other offering suggestions for the formation of a Junior Architectural Club.

Now, sir, I think these two letters must be taken as a slight indication of vitality amongst the juniors of the profession, and that there exists a feeling of dissatisfaction with the "Ordinary Generals" of the Institute, and also that something should be done towards bringing the juniors together more frequently for the purpose of mutual edification, &c.

I write this to express my wish to join such a club or association as your correspondent suggests. I agree with him that it should not be antagonistic to the Institute. You may give the gentleman my name as one of those wishing to further the object.

—Your obedient servant,

ANOTHER A.R.I.A.I.

Card enclosed.

LITHOFRACTEUR: ITS ENGINEERING AND MINING VALUE.

A SERIES of very instructive trials, as to the safety and value of lithofracteur as an explosive material, has been held at the instance of a Government committee. We have already spoken of this material, and the series of experiments carried out have fully confirmed our opinions. For mining purposes and for stone quarrying, the new power is a quite safe and powerful agent. The experiments were carried out at Shrewsbury, in accordance with a programme laid down under the direction of Professor Engels. The experiments extended over two days, and were

witnessed by a large number of naval, military, and commercial gentlemen, invited by the manufacturers, Messrs. Krebs and Co., of Cologne. The first operations carried out by the committee on their arrival at the quarry were the application of various chemical tests to determine the fuming and explosive points (all of which were most favourably endured), and to test its safety under heavy blows and concussions. Various charges were also fired in the rocks to show its mining value, and acquitted themselves with a force and completeness of effect which left nothing to be desired, and boxes of the substance were thrown over the quarry face from a height of 150 feet. We may premise those descriptions, however, with a note of the way in which the lithofracteur—one ton in quantity—has been brought from Germany, by cartage, sea voyage, and railway, to the scene of operations. The lithofracteur is made up in thin waterproof paper cartridges, about one inch in diameter, and of various lengths, and weighing respectively ½oz., 1oz., 1½oz., and 2oz. These mixed sorts are neatly packed in a stout cardboard carton, containing altogether 5lb. in weight, the carton being again tied up in a black paper envelope. Ten of these cartons are then packed in a stoutish wooden case, the lid of which is nailed on with zinc nails, each wood case thus containing 50lb.

From the list of experiments, we will give the results of a few which are to the point:—

EXPERIMENT IV.—On the crest of the lofty hill a single stockade was formed of ordinary 9-inch-wide round-back railway sleepers, nine feet in length, sunk 18 inches into the ground, which was a stiff clay mixed with boulders from the limestone rock. There were twelve sleepers in the row. In front of the foot of this palisading an indiarubber tube, 13 feet long and 2½ inches in diameter, filled with 27lb. of lithofracteur, was laid, and fired with a Bickford fuze and detonator. Only a small portion exploded, the lithofracteur having been frozen by the cold winds coming from the Welsh mountains, whose snow-capped tops were visible in the far distance. Four sleepers were cut down opposite to the portion that went off.

EXPERIMENT V.—This was one of the principal and most interesting of the whole range. A double stockade of the like materials had been similarly erected at 94 yards from the above, with an interval of 7 feet between the rows, each of which consisted of 14 sleepers. Against the foot of the front row were laid, with their ends just touching in the centre, two thin sheet-zinc tubes, 4½ inches in diameter and 11 ft. in length (in all 22 ft.), each containing 75lb. of lithofracteur (150lb. in all). These were fired by a Bickford fuze and detonator, inserted into one tube through the open joint between the two. A large part of the spectators, who, including the villagers, workpeople, and gentlemen from the surrounding districts, now amounted to some hundreds, were prudently led off to the opposite hill, but the committee and a numerous party remained on the ground, sheltering themselves behind the rocks and over the crest of the ridge. The explosion was perfect, throwing up a volcano of fire, earth, and stones. Sharp and clear it resounded from bill and hill, far, far away, until the echoes had made a circle all around. Fourteen miles away it was audible, and was noted by some gentlemen who were aware of what was being carried on. The stockades were riven into matchwood, and the hill was strewn with splinters for 150 yards around; a low stone cottage in the valley, at 135 yards off, had all its windows sucked out on the far side into its little garden; and a trench, 24 ft. long, 9 ft. wide, and 3 ft. deep, in which troops could have instantly found a safe lodgment, was blown out of the earth where the stockade had stood.

EXPERIMENT VII.—A 4½ inch zinc tube, 6 ft. long, filled with 43 lb. of lithofracteur, was inserted vertically in the ground to a depth at its base of 8 ft., or, in other words, to a distance of 2 ft. below the surface, and fired with a Bickford fuze and detonator. The explosion blew out a funnel-shaped crater, 16 ft. by 15 ft. across and nearly 5 ft. in depth, the earth being all loosened below. A shower of small stones fell from a height of probably a thousand feet amongst a crowd of spectators, who had stationed themselves down the hillside at about 120 yards off; fortunately no one being hit.

EXPERIMENT IX.—A truck experiment; the buffers of both trucks being plated with stout iron, with the intention of exploding the cartridges on collision, it being known that excessive blows of metal to metal would do so. Three single cartridges were lashed to each buffer, and the descending truck ran down the line in the steadiest manner and at a fearful speed, seemingly fifty miles or more an hour, and struck the opposing truck full and fair, the six charges exploding like pistol shots simultaneously into the air, as the trucks reared up together, their broken *débris* being sent 30 or 40 ft. down the incline, across the line, and over the fences. No severer test could have been applied; it seems nevertheless possible that had larger charges been applied

the squashing of the plastic lithofracteur might not have yielded to explosion, but have escaped unharmed.

EXPERIMENT XI.—This was the last experiment made for the committee, and was intended to represent torpedo work. The stream in the deep valley at the foot of the quarry tramway, seven feet in width, and running in a deep clay channel, was crossed by a wood sleeper bridge eight feet wide. This was piled over with three tiers of the ordinary round-hacked sleepers, and loaded with three feet of earth and stones. The river was next dammed so that the water rose to one inch above the under surface of the bridge, the total depth of water being six feet. Two charges of 50lb. each of lithofracteur were now floated under the bridge at the distance of two feet apart, and held in that position by ropes. A Bickford fuze and detonator was placed in each charge, the two ends of the fuzes being simultaneously ignited. The explosion was magnificent, some 40 tons of material at least were hurled something like three or four hundred feet into the air, stones and splinters flying still higher and falling for great distances around. The bridge was entirely demolished, not a vestige being left; the dam was blown down, and the river flowed through a crater 21 feet in diameter above a hole in the bed below of an average of 2ft. 3 in.

Contrasted with the power of lithofracteur, as illustrated in experiment xi., we will cite that of experiment iii., showing its safety.

EXPERIMENT III.—At the request of the chemist of the committee, 5lb. of the lithofracteur was closely confined in a stout wooden box, firmly nailed up with iron nails. Into this a Bickford fuze was inserted through the wood. This box was then put in a cist formed in a cleft of the solid limestone rock, and about 2 ft. long by 1 ft. wide and over 2 ft. deep. This cist was packed closely with moss and turf, then covered over with an iron plate heaped with stones packed with moss and turf. Within this closed cave, and within the closed box, the lithofracteur was ignited by the fuze, and burnt away, yielding abundant clouds of the peculiar fumes which characterise its combustion. This extraordinary test carried conviction of safety to all spectators.

Some unofficial experiments were carried out subsequent to the above, on following days, the most remarkable of which was the firing of a 6 feet length of zinc 4¼ inch tube, containing 43 lb. of lithofracteur, below water in the river Severn, beside the Breidden quarry. A beautiful fountain was thrown up with an absence of splinters, the zinc being, in all likelihood, raised into vapour by the heat of the explosion. The last-recorded explosions are significant in their bearings. The bridge experiment shows unmistakably what would be the effect if a large Harvey torpedo, exploded under the counter of an ironclad: the screw and rudder must infallibly be blown away, while the destructive effect upon the hull itself would be unmistakably such that, as an able American naval officer present observed, the captain need not trouble himself any more about the safety of his ship. This bridge experiment, also, with the one which followed it in the Severn, have indicated the certainty and effectiveness of submarine operations on bars for cutting channels, such as the one under contemplation in Holland, where tubing for a length of 1,500 yards, filled with ten tons of lithofracteur, will be exploded for the purpose of making a passage through the shoals off Rotterdam. One cannot but hope that the best results will accrue from this bold expedient, conceived by Mr. Rietsheten, of that port.

These experiments would seem to have satisfactorily settled any doubt as to the safety of allowing the importation or the transport of the material from place to place as requirements might necessitate. With due caution there cannot, we think, be any danger to be feared. Baron de Grancy, the French military *attache*; Captain Simpson, of the United States navy; Commander Harvey, R.N., and some well-known engineers and railway officials and managers, were among the number of visitors present at the above experiments.

THE PHONETIC SYSTEM.

Mr. Pitman wishes to correct an error which appears in his letter in last number of IRISH BUILDER, page 57. Referring to the time during which he has published the "Phonetic Journal," the sentence should read:—"I have published the 'Phonetic Journal' through thirty-one [not thirty-seven] consecutive years." On referring to the M.S. we find that the error was committed by the writer. Perhaps the date of the invention of Phonography, one thousand eight hundred and thirty-seven, was in his memory at the moment. For the imperfect sentence at the commencement of the second paragraph of Mr. Pitman's letter, our compositor is in fault. It should read, "The 'Phonetic News' (Nuz), thanks to *Punch*, seems to have served no other use to the Reform than to point a joke."

KILMALOODA HOUSE.

WE illustrate with present issue a house, to be built for Sampson Beamish, Esq., Kilmalooda, County Cork, from the design of Mr. William H. Hill, B.E., architect, Cork. The plinth and string courses, bay windows, dressings to openings, cornice, and bands, &c., will be of chiselled Cork limestone; the external facing of walls of Allen and Mann's white bricks. The cost is estimated at about £3,000.

L A W.

COURT OF QUEEN'S BENCH.—FEB. 28.

(Before the Lord Chief Justice, Mr. Justice O'Brien, and Mr. Justice Fitzgerald.)

Martin v. the Corporation of Dublin.—In this case the plaintiff, who is a timber merchant, carrying on business at Sir John Rogerson's-quay, sought to recover damages from the Corporation for the flooding of his premises and consequent damage to his property by reason of defective sewerage. The matter was tried out before the Lord Chief Justice and a special jury, when the plaintiff obtained a verdict for £700 damages. A conditional order to set aside the verdict was obtained, and counsel for the plaintiff showed cause last term against it being made absolute.

The Lord Chief Justice now gave judgment, to the effect that the conditional order ought to be discharged. It appeared from the evidence that the injury complained of resulted from improvement and enlargement made in the sewerage of the upper, or what was called the Queen's-square district, by which great quantities of sewage and water were brought down, so as to swell the volume of sewage in the Cardiff-lane sewer, from which no adequate outlet was provided, and then it forced its way into the small drain beneath Mr. Martin's premises, rose to the surface, and damaged his goods. Mr. Martin had previously given notice after notice to the Corporation of the prospect of mischief arising to his property from the operations of their officers, and they stated that if he had expended some £40 or £50 he would have, in fact, escaped the mischief which had occurred. The court could not say that that was an answer to an action for damages. If the Corporation were satisfied that a moderate expenditure would have prevented the mischief, it was their duty to make the expenditure, and it was held in the case against the Woolwich Board of Health, that want of funds was not an answer.

Mr. Justice Fitzgerald concurred. From the year 1863 there had been complaints of this particular sewer. Some time about the year 1867 extensive alterations and enlargements were made in the sewerage of the district, and the negligence alleged was that the Corporation did these works without providing an enlarged outlet. No doubt the result of the new sewerage was highly satisfactory to the inhabitants of the high grounds about Fitzwilliam square, Fitzwilliam-street, and the immediately adjoining localities; but the effect was to discharge the sewage into Mr. Martin's premises. The court were of opinion that the weight of evidence was in favour of the plaintiff, and that they ought not to disturb the verdict. If the Corporation, when they saw the mischief that was likely to arise, had offered to do the work for Mr. Martin, they could have prevented it. The verdict was important as showing that the officers of the Corporation, in carrying out these works, no doubt for the public benefit, should exercise all the precautions that modern skill and experience enabled them to command. It appeared in another aspect of the case that misfeasance was charged against the Corporation in consequence of their allegation that they had not money to carry out the works, which would have saved the plaintiff's premises from injury. It was a matter of serious consideration whether the Corporation should undertake works for the carrying out of which they had no funds. But in the present instance he thought that evidence on that subject had been properly excluded from the jury. It was plain that Mr. Martin had been for years complaining of the state of the sewer, and the only satisfaction he got was the City Engineer telling him that it was a difficult matter; that he did not see his way out of it; but that he would do what he could, since when he had done nothing (laughter). He thought it would be a mistake to send this case to a new trial, more especially as they had, in the shorthand notes, a portrayal of the great care, great particularity, and great deliberation with which it had been investigated by the Lord Chief Justice.

Mr. Justice O'Brien also concurred, and the conditional order was discharged with costs; but leave was reserved to the defendants to appeal, if so advised, on

the question as to the exclusion of evidence concerning the position of the Corporation in respect of funds.

Counsel for plaintiff—Mr. Heron, Q.C.; Mr. Fitzgerald, and Dr. Corrigan. For defendants—Sergeant Armstrong and Mr. Carton.

THE PETRIFACTIONS OF LOUGH NEAGH.

WE give below a contribution by the Rev. G. MacCloskey, M.A., on the petrification and other properties appertaining to the water of that lake. The paper, though not entirely new to Irish readers, will be found to interest many. As it will likely possess an interest for our English readers and subscribers, we are induced to give it an extended publicity.

By way of introduction we may state that Lough Neagh is the most considerable of the lakes of Ireland, and perhaps, by comparison, one of the largest in Europe. It comprises in extent 98,255 acres, and its greatest depth in the central part is about forty-five feet. Many conjectures have been made about the origin of this lake. The Bishop of Derry and Earl of Bristol, who wrote upon the subject, stated that in a monastery upon the Continent a manuscript exists giving an account of a fearful earthquake, which threw up the rock of Toome, stopped the course of several rivers, and these all uniting, formed Lough Neagh. There are many legends connected with holy wells in conjunction with the original formation, and of temples, palaces, and towers swallowed up. Our national bard thus gives an embodiment to one of the legends:—

"On Lough Neagh's banks, as the fisherman strays,
When the clear cold eve's declining,
He sees the fount Towers of other days
In the waves beneath him shining."

No matter what may be the traditions or the legends, fanciful or real, there is no doubt whatever about the facts and properties detailed in the description we annex. It has of course been generally believed by our people that the waters of the lake possessed the property of transforming pieces of wood into stone in a few years. We never gave any credence to the existence of this expeditious process and power of transmutation. Mr. MacCloskey says:—

"From early times the subject excited the interest of learned men, and towards the close of the seventeenth century the Royal Society had inquiries made to clear up the doubts in which it lay. In 1751, Dr. Barton published his great work on Lough Neagh, which contained an elaborate and reliable investigation of the petrifications. Since his time they have been discussed by Dubouardieu, Sconler, and others; and some light has been cast on them by recent discoveries of plant remains in the trap-rocks of Antrim and of the Hebrides. The petrifying property does not belong to the water of the lake, nor to the adjoining soil; the wood petrified is not holly; the time required for the process is much greater than seven years, greater than as many centuries; the petrified wood is not confined to the shore of the lake, but is found far in the country. Lignites abound in the districts lying to the south and east of the lake. The silicified wood is found in the drift deposits at Sandy Bay, to the east of the lough, and inland, near Crumlin; but on the west of the lough it occurs only on the beach, to which it has been washed by the waves. The plant-remains recently discovered near Ballyclare Station of the Northern Counties Railway agree closely with the lignite found on the lough shore near Crumlin, and with the silicified wood. But this amount of agreement does not render it certain that all these fossils belong to the same geological formation, although it favours this view, and thus they may with probability be assigned to the Miocene age as the time when the trees grew, whilst they have been subsequently imbedded in post-pliocene clay fragments. Large silicified trunks have been found under the Camlin River, near Crumlin, and one of these, now at Langford Lodge, is about ten feet high, and as many in girth. Another, which was described by Barton, originally weighed about 700lb. In certain places near Sandy River, the silicified wood has been found in connection with lignites, but it is not co-extensive with the lignites, nor does it, like them, occur intercalated between the masses of trap-rock. The appearance of the silicified wood was described by the lecturer, some

parts being water-worn and bleached on the outside, so that they were thought to be holly, but black when broken; others being dark brown, and easily splitting up. Barton made a close guess when he said they were like cedar-wood. The woody substance has entirely disappeared, 98 per cent. of silica being found in the fragments. A microscopic examination shows that they often retain the delicate structure of the original wood, and the rounded disks on the wood-cells prove that they belonged to the coniferæ or pine family of plants. These do not appear to have been the only plants living at the particular time and place to which they belonged, for leaves of alder and beech, and other ordinary exogenous tree, have been got in Sandy Bay; but it appears that coniferous wood will be preserved where the harder woods decay. The Miocene flora of this country was rich and varied, but it is only the one kind of wood that comes down to us in a silicified condition. The wood of coniferæ is remarkable for the absence of vessels or ducts, for having tubular wood-cells without hard, secondary deposits, and for having the sides of the wood-cells facing the medullary rays covered by rows of circular disks; whilst the medullary rays themselves bear smaller disks. By these characters we are able to recognise small pieces of this kind of wood. Amongst the subdivisions of coniferæ there are several varieties of structure; the two leading divisions are:—1, The pine division, where the disks are detached from each other and in single rows; sometimes in a double row, those of one row being opposite those of the adjoining row. 2, The araucarian division, where the disks are close to each other, and in single, double or triple rows; in the latter cases those in one row being alternate with those in the adjoining row. We have also other varieties, as in the yew, where there are spiral fibres besides the disks, and in cycas, where there are also slit-like markings. The office of these disks seem to have a relation to the habits of the trees, being rapid growers in temperate climates, and requiring a free passage of fluid up and down the stem (which is provided for by the tubular wood-cells) as well as in a circular direction around it (which is provided for by the circular disks, these being thin, and communicating with each other), but requiring only a slow passage of fluids and heat from the centre to the circumference. In classification the microscopic structures do not enable us to decide the genus and species, but they serve to divide the coniferæ into four or five types, to either of which we assign particular specimens. These are:—1, The type of the cupressaceæ (cupressoxylon). 2, Type of the abietaceæ (cedroxylon). 3 Type of the pines (pityoxylon). 4, Type of the araucaria (araucorixylon). 5, Type of the toxaceæ (toxoxylon). The Lough Neagh silicified wood belongs to the first of these groups, and has been termed *Cupressoxylon Pritchardi*. This name only classifies the wood according to its structure, but does not indicate the particular species of tree to which we should assign it if we had the leaves and cones preserved. It is characterised by having the disks in one series and distant, or in a double series and opposite, by having no spiral fibres, and by having very numerous resiniferous cells: in this last point it differs from pine-wood, which possesses resiniferous ducts. All the specimens found in the locality appear to be of the same kind; we cannot say that it belonged to the cypress trees, podocarpus, and some other genera having similar wood; but we can say that in all essential characters it agrees with the wood of cypress; that it agrees less closely with that of pine and fir, whilst it agrees still less with the wood of yew or of araucaria. As to the nature of the process of silification, two different processes are popularly confounded under the term: 1, The incrusting process, as at the geysers of Iceland. Then there is simply a deposition of silica from surcharged water, especially on its evaporation. Complete evaporation of the water is, perhaps, necessary, and hot water is favourable to the process. 2, Interstitial silification, where the organic matter is removed particle by particle, the delicate internal structure of the original organism being usually preserved. The Lough Neagh wood has undergone the second kind, or interstitial silification. The process must have been caused by water containing silica in solution, but it was not due to the water of Lough Neagh, as that water is singularly free from earthy constituents, and is not known even to have any tendency towards silification, and the lough did not exist as such at the time when the process took place. Nor can the adjoining soil or clay have produced any such effect, as it is only when dissolved in water that the silica can penetrate the structure of wood. Nor can the agent have been hot water or steam, as has been supposed in some quarters, for it would in this case have reduced the ligneous matter to a pulp, and destroyed it. The water of rivers at ordinary temperatures has in many instances produced such

a phenomenon, even within the historical period, silicifying wood to a greater or less depth from the surface, and several illustrative cases, from the Danube, from a river in Saxony, from Egypt, and from America, are given in *Bischof's Chemical Geology*. The waters of most rivers and of the sea contains a very small percentage of silica, which is sufficient to supply material for the process. It is usually found that the change commences at the surface, so that the internal parts remain longest unsilicified, and often decay whilst the outer shell becomes hard and stony, and subsequently the internal parts may become filled up with a foreign matter, as sand. Thus soft wood may be most easily preserved, as the silicifying process will here most rapidly penetrate to the heart of the trunk before it has time to rot. A rapidly flowing river, containing silica in solution, and having logs of trees in its channels, would afford favourable conditions for the production of silicified wood, and we may thus guess at the origin of that for which the neighbourhood of Lough Neagh is celebrated. The Antrim system of trap-rocks forms part of a more extensive system, which includes the Hebrides, much of Scotland, and islands north of Scotland. All this district during the Miocene age constituted part of a continuous continent. Its northern parts were occupied by mountains covered with luxuriant forests, and watered by large rivers. Mr. Giekie has recently discovered the bed of one of these rivers under the Scur of Eigg, one of the Hebrides; and fragments of coniferous wood have been found there which Lindley and Hutton call *Pinites*, but which agrees closely with our specimens. This river probably flowed southwards, towards the Antrim district. In its course it would pass the island of Mull, where silicified wood has been found, agreeing substantially in character with that which we are describing; in fact, the elaborate description of it which Mr. Nicol gave forty years ago would apply in every word to the Lough Neagh specimens. In the water of this river, or of a similar river, we believe the explanation of the petrifying work is to be found, and the petrified logs grew in the Miocene age, as forest trees in mountains north of Scotland. Lignite beds were formed by mosses and other vegetation in the swamps adjoining the river, and were sometimes swept down by its floods. Subsequent outflows of basalt buried these, so that we find them intercalated in the trap. Vast denudation succeeded, wearing away hills, and leaving only shreds and patches for subsequent times. Then the glacial action of the post-pliocene age transported such silicified trunks as came in its way, wearing and rounding them, and at last leaving them buried up in its clay-drift, where they are still preserved.

MISCELLANEOUS.

THE "SCOTSMAN" AND THE WALTER PRESS.—The Walter Press, invented by Mr. J. Macdonald, the manager of the *Times* printing establishment, is now used in printing the *Scotsman* newspaper. A reel of tightly-rolled paper, in the form in which it leaves the paper-mill, fully four miles in length, and weighing nearly six cwt., is placed at one end of the machine, and in the process of unreeling is damped, printed first on one side then on the reverse with unfailing precision, is cut into sheets, and delivered at the rate of fully 12,000 copies per hour at the other end of the machine. The sole attendants necessary are two lads at the delivery boards, and a third, the striker, who starts the machine and looks after the rolls as they are unwound. While printing, the paper travels through the machine at the rate of nearly 1,000 ft. per minute, and a reel four miles long is thus printed in less than twenty-five minutes. The delay in changing from one reel to another scarcely exceeds a minute, so that the production is thus almost continuous. With the two Walter presses in the *Scotsman* office, thirty-six miles of paper are printed each morning in two hours, and on Friday, when the *Weekly Scotsman* is also printed, the length of paper used is about eighty miles.—*Builder*.

THE SEA NINE MILES DEEP.—On October 30th, 1852, Captain Denham, of the British Royal Navy, took soundings in latitude 36 degrees 49 minutes south, longitude 37 degrees 6 minutes west (about 1150 miles due east of Cape San Antonio, the nearest land being the coast of Rio Grande, 900 miles N. W. by W.), and touched bottom at 7706 fathoms. The line took nine hours and twenty-four minutes to run out! 7706 fathoms is equal to 8,333,440 miles, or $8\frac{1}{2}$ miles and 36 feet over. The plummet—a 300 pound iron ball—sank as rapidly the last mile as the first (allowing for the friction and buoyancy of the line), showing there was no increasing resistance from increasing density.

We learn from the *Australasian* of December 2nd, that Messrs. M'Master, Hodgson and Co., of this city, have been awarded a certificate of merit, extra class U., by the National Agricultural Society of Victoria, for specimens of Improved Fluid Extract of Annatto, which were exhibited by their Agents (Messrs. Hood and Co., of Melbourne), at the Spring Show, in November last. This is the highest award given to articles not in the prize list which are classed as extras.

OUR ASPHALTE PAVEMENTS.—We all have immense faith in the will of the people, and one member of the City Commission of Sewers carries his confidence so far as to imagine that even asphalt pavements are not proof against it. At a recent meeting of that body (says the *Pall Mall Gazette*) a discussion arose as to the merits of asphalt compared with those of granite pavement. It was asserted that in Cheapside on the previous day, between twelve and one, no fewer than seven horses fell down, one of the unfortunate animals breaking its leg. These accidents were attributed to the slipperiness of the asphalt; and although it was contended, on the other hand, not without reason, that the old noisy granite pavement was often so slippery that horses could not stand on their legs, yet the asphalt came in for many hard words, and one gentleman predicted with confidence that "the time would soon arrive when asphalt pavement would be swept away by the irresistible current of the will of the people." It is to be hoped that if the people's will really has forced enough to influence asphalt, they will not exercise it for the purpose of removing this material without also willing that it shall be replaced by something less disagreeable and inconvenient than granite. In the meantime the people's will might exercise itself with advantage, not so much in sweeping the roads away as in sweeping them clean. An "irresistible current" that will thoroughly wash the streets is sadly required. We have had hardly sufficient experience yet of asphalt paving to justify us in condemning it because some horses happened to fall down upon it in Cheapside. It seems, however, to be a quiet, cleanly sort of pavement, which is more than can be said of its fellows. As to the effect of the "will of the people" on asphalt, it is impossible to form an opinion without experiment.

SANITARY REFORM.—"Justice for Ireland" was once a husting cry among the followers of O'Connell. We wish some one would raise effectively a cry of "Justice for England," and would use some of our urgently-needed domestic reforms as a test for candidates at elections. The illness of the Prince of Wales should be employed as a lever to compel the early consideration of sanitary reform; and the members of the House of Commons who are neither the slaves nor the dupes of party should be appealed to to exert all their powers in order that the consideration may be genuine and the reform sufficient. The terms of the reference to sanitary legislation and the place which it occupied in the Queen's Speech are, we fear, indications of a lukewarmness of the Government upon the subject. As Lord Derby intimated, sanitary reform is a question on which there is no serious difference of opinion; and any attempt to deal with it fully and fairly would have the support of Conservatives as well as Liberals; but the Government seems disposed to give the subject the go-by this session. At least we looked for a specific statement that a comprehensive measure would have been submitted to Parliament; and the absence of a distinct declaration to this effect in the Queen's Speech leaves us in doubt as to the sincerity of the Government on the question.—*Lancet*.

BANKRUPTS.

James Barker and Edward Barker, both of Upper Abbey-street, city of Dublin, builders and contractors, trading as J. and E. Barker, to surrender 5th and 26th March.

TO CORRESPONDENTS.

CURRENT LITERATURE.—Some notices of new works and magazines for March are held over until our next issue.

THE NEW COURTS OF LAW, LONDON.—A correspondent draws our attention to some articles on this subject in the English literary journals. The criticisms may be very smart, but the professional knowledge is not very apparent. We may on another occasion advert to the subject in strict justice to all the parties concerned.

SHALL WE HAVE A JUNIOR ARCHITECTURAL INSTITUTE?—If it please you, *Messieurs*, and if you can mutually assist each other by such an organisation, there is no obstacle in the way. Better to be doing something than nothing—"to be, or not to be." There is talent enough in this country for a powerful Institute of Architects, and yet we have failed to see one grow in strength. We must suppose it is from the want of true brotherhood, and of that feeling which preserves the dignity of the profession from sinking out of sight in the person of the man. Self is a great tyrant when not controlled by good breeding and gentle manners, and the love of abstract and outside interests, usually termed the common weal.

PUBLIC RECORDS.—Birmingham Tower, in Dublin Castle, contains a large quantity of public records relating to Ireland. In 1711 the Council Chamber, with many of its valuable records, was destroyed by fire.

IMPROVEMENTS TO IRISH TRADE.—See article in present issue on the Main Drainage of Ireland in the Eighteenth Century. The population of the city in 1682, according to the computation of Sir William Petty, was 60,000, but we fear Sir William's figures are far from being exact.

LORD MAYOR.—The title was first conferred on the Chief Magistrate of Dublin in 1665. Before that he was simply styled the Mayor, like those in other cities. Even the title of Mayor was only in use in Dublin since 1499, when one Thomas Cusack was so styled; the previous magistrates having been called "The Provost."

ROYAL HIBERNIAN ACADEMY.—The subject is not lost sight of.

"CONSERVATORY."—The subject will probably be touched upon in our next issue, with incidents ancient and modern in Ireland.

AN ART-WORKMAN.—In the present issue articles will be found on both matters in connection with our churches and other buildings.

A "Junior Member of the Institute" acknowledges the receipt of communications from the following, who kindly endorse the views put forward by him in our last issue:—T. R., W. P. R., J. J. K., T. H., J. W. O'R., J. L. R. He shall be happy to receive the names and addresses of other gentlemen who would wish to join such a club, if left at our office. So soon as twenty names are entered, a meeting will be called to arrange the preliminaries.

Grandy's "Timber Tables," published by Lockwood and Co., contains the information "Apprentice" requires.—T. MARTIN.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—JAMES EPPS & CO., Homeopathic Chemists, London. Also, makers of Epps's Cacaoine, a very thin beverage for evening use.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filled with vestas, at one penny. Any Tobaccoist, Grocer, Chemist, or Chandler will supply it.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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The Irish Builder.

VOL. XIV.—No. 294

Sanitary Government.

BILL is at present before Parliament, brought in by Mr. Stansfield, which will soon become law. As far as we have been able to examine and to understand its drift, we must say that it is imperfect in many particulars, though undoubtedly, as a piece of legislation, it is a step in the right direction. The conse-

quence of the late Royal Sanitary Commissioners' report is the framing of the new Bill, though we do not see that it embodies all the advice that the report recommended. We would like to know is the Local Government Board to be a perfectly new board, or is it to be in part the old Poor Law Board under a change of name, and undertaking to do duties much enlarged, important, and yet ill-defined? It is, however, the act of legislation, and not the men who compose the board, we have to do with particularly, and the effect of this Act and

its working for the benefit of the community. It would appear that, by the new Bill, sanitary inspection will be carried out by a very large class of lay inspectorships throughout the country, selected, of course, for their intelligence and fitness for the office.

The medical press of the kingdom are, of course, agitating hard that sanitary inspections should be nearly, if not altogether, in the hands of medical, not lay, inspectors; or at least that medical knowledge, which of course means medical men, should form the basis of the inspection. Giving medical men their strict due, we contend that it would not be advisable that the whole control of sanitary matters as to health and disease, and the predisposing causes of the latter, should be left to the tender mercies of medical men. For eighteen centuries and many more the medical profession have been engaged in simply curing instead of preventing diseases, and now in the latter half of this nineteenth century they want, most unjustly and intolerably, to thrust aside and ignore the sanitary reformers, to whose labours we owe the uprise of what is justly called Sanitary Science. Medical men are most useful and proper in their position, and some of them of late years deserve every honour and respect; but as a class we dispute their claims to be considered sanitary reformers in any sense. That they may become so in course of years is another matter; but what they are at present, as a body, it needs not any deep knowledge to show.

We unhesitatingly say that it is to members of the architectural and building professions that we owe most of our modern triumphs in

sanitary improvement, and we are prepared to prove against all odds. Practical architectural, building, and engineering experience are more requisite as a qualification for a sanitary inspectorship than medical knowledge, for in the knowledge that belongs to the pursuit of these professions will be found the exact experience that is required. "Prevention is better than cure," is a universally acknowledged axiom, and we would ask in sober earnestness, what do the vast majority of our medical men know about the conditions of soil, drainage, building construction, ventilation, water supply, and sundry and several other matters, technical and otherwise, outside the present range of medical education or experience? What a drawback, after all, is it not that in the history of an honourable, an old and valuable profession, that its greatest triumphs have been achieved at the cost of millions of human lives in devising methods of cure, instead of devising methods for prevention of disease. Skilled inspectorship is, we must admit, most necessary, and must be provided. Medical officers of health as auxiliaries should be retained in one form or another, but not as exclusive and irresponsible authorities, and means should be at once determined upon to prevent a clashing of interests or duties between lay and medical inspectors and the local bodies they severally serve. It would, indeed, be a fatal mistake in sanitary governments if local boards are allowed the sole control of appointing their medical and other officers of health, or that the medical officers could order as they liked, or rather dictate with an imperious will the set and only duty the lay inspectors should perform.

Be it known to all whom it concerns—and it does concern us all—that local boards, individually and collectively, are the greatest delinquents and evil-doers in matters unsanitary. On their backs rests the greater part of the blame, and on their souls the greater portion of the sins belonging to unwholesome and contagious neighbourhoods. If sanitary inspectors have to report honestly what they see and examine, how can they do it with freedom, as they will have often to report against the evil-doings of their own masters, the members of these local boards? If the inspectors are upright and honest, as they ought to be, in ninety-nine out of every hundred cases they will be sure to meet with ill-will, and false and flimsy charges of neglect and incapacity will be brought against them by some narrow-minded member or another. The appointment of inspectors ought to rest with the central authority, not the local one, and skilled lay inspectors, as well as medical ones, should be placed in their organization on such a plan that their respective duties will not clash. Mr. Stansfield's Bill will need amendments in committee; but we think, at the same time, that it would be dangerously unwise to hand over the whole power of sanitary inspection into the hands of medical men at present, because they lack in many essentials that class of technical knowledge, which does not form a portion of their ancient or modern education. There is another matter connected with the office of medical inspectors in connection with local bodies, and that question is, how far is the holding of their public appointment consistent with private practice, pre-supposing they hold an appointment in connection with a very large district? Are medical officers of boards to be dispensary doctors or apothecaries,

sellers of medicine, at one and the same time? and is their examination and condemnation and reports about certain conditions of things, in their respective districts, to have any remote connection with drawing water to their own mills? These are matters we will leave to the public mind outside doors to digest, merely remarking that we firmly believe in sanitary good government the interest of the common weal should stand entirely alone.

Mr. Stansfield is indirectly accused, in the framing of his new Bill, to favour the inspectorial system of Gwydyr House, which was said to be conducted by men of legal and not sanitary attainments. We only hope that whatever the permanent and *bona fide* constitution of the Local Government Board may be, that there will be no antagonism, and, whether the traditions of the old Poor Law Board be retained or not retained, that we will finally obtain a good and revolutionary measure of sanitary reform.

Our whole interest in the matter is to see Sanitary Government and Inspectors placed on a firm basis, so that the public health of the country will not be a subject any longer a disgrace to the British Islands. Corporations and local bodies are at present invested with powers which they misuse, and in conferring upon them better defined powers in the interest of poor and rich, it is well to see that all proper precautions are taken beforehand that our new sanitary legislation will not be a failure.

We make no apology for speaking plainly our views concerning medical men in connection with Sanitary Government, because, while admitting their just rights, we must deny their assumptions in matters which are clearly not within their special province.

We claim for our own professional constituency the rights and honours to which they are justly, as pioneers and indefatigable labourers, entitled to; and though humble advocates of our order, we will not stand silently looking on with a lip in the dust while interlopers and usurpers are striving to filch from us our hard-won victories.

CURRENT LITERATURE.

ARCHITECTURAL literature of late is in nowise sparse, and many valuable books from new hands as well as from experienced writers have been issued. Among the latter "Traditions and Customs of Cathedrals," by M. E. C. Walcott (Longmans and Co.), is an instructive and most interesting volume. The writer is at home in this species of literature, and his former works have earned for him deserved praise. The work is rather brief, but there is much compressed into a small compass. Mr. W. J. Macquorn Rankine, whose engineering works are so valuable, has given us "A Memoir of John Elder"—a name that was notably connected with the history and progress of shipbuilding. The memoir is accounted by those who knew Elder, to be a creditable and impartial one. Earl Stanhope has collected and edited a volume of "Miscellanies," second series (Murray). Many of the papers are valuable as well as interesting. "Spectrum Analysis," familiarly explained, by Dr. H. Schellen, and translated from the German edition by Jane and Caroline Lassell, and edited, with notes, by William Huggins, LL.D., D.C.L., F.R.S. (Longmans, Green and Co.), is a work entitled to a careful and discriminating notice, from its deeply

interesting nature. Perhaps there are few discoveries of the human mind more extraordinary and brilliant at the same time than that connected with spectrum analysis. Those who are desirous of possessing a clear knowledge of marvels in science, and the apparatus by which they may be investigated, could not do better than peruse this most valuable work. "Wanderings in War Time," by S. J. Capper (Richard Bentley and Son), is a series of interesting letters ament the late war on the Continent, by one who figured on the stage, being one of the delegates of the "War Victims' Fund." The volume is racy and graphic, but it is a pity it was not published some months earlier, while an interest existed on war affairs. "A Book of Parliamentary Anecdote," by C. H. Jenuings and W. J. Johnstone, is a compilation from many sources of most agreeable reading that will interest politicians and not less ordinary readers. It is published by Messrs. Cassell, Petter, and Galpin.

"The Land of Desolation" is a narrative of personal adventure in Greenland, by Isaac J. Hayes, M.D., Author of the "Open Polar Sea" (Sampson Low, Marston, and Searle). This book, though belonging to last year, cannot be passed over, for it is deeply attractive, genial, and instructive, and will be found to please every description of reader. We have some brief particulars of a great colony, founded by Eric, and flourishing from 985 to 1350, then sinking out of sight by being replaced by the curious Esquimaux race. Readers who like to read of icebergs, strange natural sights in the far polar regions, and of the primitive habits and pastimes of a harmless and hospitable race, will read "The Land of Desolation."

"Flowers and Gardens; Notes on Plant Beauty," by a Medical Man (Strahan and Co.), is a work that will give rise to many elevating thoughts. It is not technical, but pleasantly descriptive of the beauty and charm of flowers and gardeus, and their fitness for the purposes for which they are intended. Dr. Forbes Wilson is the name of the author. The work was written to soothe him during a weary time of illness, which he knew would end in death, and he died two days after putting his name to the preface. The book, from this cause alone, independent of its undoubted merit, must possess a deep interest for many.

The magazines for the month are, many of them, most lively and readable, and two or three very dull.

Blackwood has two good papers—"Ministers before Parliament," and "The Manchester Nonconformists and Political Philosophy." The former article touches up the Premier about what is termed the "Collier Scandal." The article on the "Autumnal Manœuvres" enters into the subject of the Hampshire campaign, and makes some suggestions from a military stand-point view about the organization of the army.

Frazer treats us also to a political paper, entitled "New Royal Warrants." In this article Mr. Cardwell, instead of Mr. Gladstone, comes in for the greater share of the blame respecting the late exercise of an extraordinary privilege. "Taine's English Literature" is a clever review of a clever work. Some other papers are also worthy of perusal.

Cornhill is not so good as usual, but there are a couple of very good papers. "Wanderings in Japan," by Mr. Mitford, must please

all general readers, and the lively "Story of the Plebiscite." Charles Lever's "Lord Kilgobbin" will certainly please his old Dublin readers, and the scene in the breakfast room has some of the old charms in it. Lord Kilgobbin is, however, now out in a published volume. We suppose many of our old city readers know where the ruins of grey Kilgobbin Castle stand, even though they may never have heard of the lord of that name. Well, let us whisper in their ears that it is sacred to the memory of the great Milesian "Gobhan Saer," whom the peasantry believe to have been the architect of the Round Towers, and if tradition tell the truth practised at Westminster Abbey in later times. If the "Gobhan Saer" built Kilgobbin Castle and all the other castles with which his name is connected, he must, to use the words of "Barney Sheehan," be a "great man entirely." Where did Charles Lever, we wonder, catch Lord Kilgobbin? Did he belong to a disbanded militia regiment, or was he one of "Our Mess."

The *Gentleman's* is a varied and attractive number this month, and will please some Irish readers. It has one good poem, "At Etreat." "The Players of our Day," "A Greek Good Friday," "The Alabama Claims," "The Comic Writers of England"—all these are good, or at least very readable, articles.

Belgravia has two articles on the Press—one on the American Press and the other a description of how "The Gadfly Failed." Many gadflies and glow-worms, as well as beetles, have gone down into the unfathomable surges of public disgust, and there let them lie. Mr. Sala's "Imaginary London" is amusing; but Sala could write an amusing volume about his hat, and after all there would be nothing in it.

Temple Bar has an article on Richard Steele (not unknown in Ireland), "Clubs and their Ends," "Mirabeau," "A Night with the Anthological," and some other papers. Nearly all the articles are rather solid matter; but the last two papers mentioned will be found to give enjoyment.

London Society is redeemed this month by one good article on "Leaders of the Bar," and several capital illustrations.

The Argosy has matter and material of good and varied quality, and will please Irish as well as English readers. "Edmund Spenser the gentle," and "A Detective's Note Book," with "Breaking Down," are papers well worth reading.

What Is It? is the title of a new sixpenny magazine which opens fairly. It contains a paper, "Additional Memoirs of Sir Walter Scott," which, as it comes from the pen of the editor, who is Charles Stewart Lockart, is expected to be good, and it is pretty good.

Colburn's United Service has a contribution from M. de Fonblanque on "Coutest," which is an ably-handled paper. "Marlborough's Lieutenants" will be found to be a very enjoyable and well-written account.

Of the other papers there are none that call for particular mention.

Cassell's Magazine takes up a new story after finishing "Miss Finch." Hesba Strelton can write well, and will, no doubt, give value for value, and excite the interest without outraging the feeling. "The Eclipse of the Sun" treats about that recent occurrence.

Of the *Educator* we have already spoken; and this we may say now, that the majority of Messrs. Cassell's publications are up to the mark in matter and illustration.

CITY TAXATION OR ROBBERY—WHICH?

HUMAN endurance has its limits, and in the city of Dublin this endurance has exceeded the usual limit accorded to even outraged feeling and humanity. Was it ever known before, in the history of any unfortunate city, that the taxes could reach 10s. in the pound? Just think of it, and consider a poor struggling tradesman, living from hand to mouth almost, and occupying a house valued at £20 a-year!—think of the state of public extortion that could exact from such a householder £10 as taxes—half his rental! When you bring this home to your minds, citizens of Dublin, you have an exact estimate of the state to which one of the most shameful corporations that ever existed has brought you. If you are not the veriest slaves that ever breathed heaven's air, and looking on heaven's blue sky, and standing as citizens made in the image of God and man, you will at once revolt, not against this taxation, but this outrageous public robbery!

Did the Home Government or the Irish Executive but know the right state of our municipal government and affairs, there would at once be some form of procedure moved for that would suspend all present action of the Corporation of Dublin. Indeed we firmly believe that there would not only be a public auditor, but a government receiver, forthwith appointed, so that the public moneys should not pass into the Corporation's exchequer until a clear and correct balance-sheet of income and expenditure was published, extending over the last ten years or upwards. If we are not mistaken, the citizens of Dublin are about to speak, and indeed it is full time.

As we write, there are reports before the Corporation for confirmation in respect to an increase of official salaries—the salary of the Superintendent of the Fire Brigade; and there is a salary of £200 to be voted to a superintendent of scavenging, which is never done, or never will be under the present regime.

Then we are about to have the public money thrown away in constructing hopper barges for the removal of the scavenging soil, which is to be thrown into the mouth of the harbour—a splendid piece of model engineering, from the brain of the Borough Engineer, or, perhaps, Mr. Bazalgette! Talk! talk! talk! which ends in further taxation, and glories in voting public moneys away, is the sum total of the administration at the City Hall. There have been hole-and-corner meetings during the last few months in parts of the city, at which members of the Corporation were interviewed for the purpose of raising the wind, and the Dublin Quay Walls and Bridges Bill is one of these schemes. There has also been a great deal of private chuckling and greeting, *entre nous*, on the supposed success that is about to attend the management of salaries for the new officials of the forthcoming Main Drainage Works. Pretty state of things, truly! Admirable local government! Nice scrutiny! Curious anti-climax to the early dreams of the early reformers of the "Reformed Corporation," which has, in sooth, become more diseased than the so-called "rotten Corporation" that preceded it.

It is scarcely necessary for us to expose the *modus operandi* of how Corporation schemes are generally devised, or who are the principal individuals who are found at the head and tail of the hugger-mugger conclaves which are the pioneer symptoms and subsequent sequences of the covert conspiracies against the public interest. All this will be made manifest in due time. What remains for the citizens and ratepayers of Dublin to do now is, not only to protest, but to organise a representative body of ratepayers who will oppose all further taxation, and who will insist on a detailed report of the work done for the money they have been obliged to pay. Moreover, it will be the bounden duty of this organization to pick out a new class of healthy representatives for

the next ward elections in the city. The fungi and fossils must be cleared out root and branch, without fear or favour, and men of intelligence and integrity voted in, who are above reproach, and who are not always in a stato of chronic impecuniosity, or, in other words, men whose difficulties, personal and political, render it impossible for them to act with independence.

We wish it to be distinctly understood, that this is not a political subject with us, nor do we desire that any person should give it that colour. It is simply a matter of local government and taxation, of injustice and wanton expenditure of the public money, while the ratepayers are ground down and impoverished, and our city scandalised before the face of Europe. The taxation of the city is more than sufficient by some thousands to carry on local rule and carry out local improvements, if it was properly managed by upright and practical business men. When a corporation becomes an *open sesame* of abuse, an assembly where people's rights are bartered and exchanged, where all the profit or surplus goes to officials, and all the loss has to be borne by the taxpayers, then it is time that this system should be trampled down, for the illusions that once existed respecting our municipal institutions have long since been dispelled, and nothing now but mortal hatred stands between this system and the people.

"STAMPING OUT THE VERMIN."

We have already hunted one pseudo right reverend scoundrel and quack to earth, or, rather, we have unearthed him from his temporary home across the Channel, and sent him in search of a new home and a new *alias* with the limbs of the law upon his trail. Here is another mock medical vagabond, whose name we have posted far and wide last year, the former assistant of Dr. Smith, *alias* Hill, *alias* something else. This Dr. (?) Barnes has been in the habit of patronising to a great extent our Dublin and provincial Press with his atrocious advertisements. We warned the proprietors of these papers on more than one occasion of the assistance they were rendering to unmitigated rascaldom, and we warn them now again, that in several of their papers they have still advertisements from convicted swindlers: this we can prove, and will prove as soon as a public prosecution is undertaken on behalf of the public by the Police Commissioners. We subjoin a short report of the surrender of the pseudo-Dr. John Alex. Barnes to justice, in London, as a warning to some Dublin quacks and Dublin newspapers:—

(Before the Deputy Recorder.)

John Alexander Barnes surrendered to his bail, and pleaded guilty to publishing obscene books.

Mr. Poland and Mr. Straight prosecuted, instructed by the Treasury; and Mr. Ribton defended.

The defendant resided in Lonsdale-square, Barnsbury, and was formerly a clerk to Dr. Smith, of Burton-crescent. Since he went into business his advertisements appeared in the provincial papers side by side with Dr. Smith's. The defendant also circulated a book called the "Secret Friend," and one of which the police managed to get sent to them by the defendant, together with some testimonials. At his house another work called "The Invigorator" was found. After his committal his solicitors had communicated with the Treasury, to the effect that the prisoner would destroy the book, and not offend again. Four hundred and fifty copies of the "Invigorator" had been destroyed, as well as 1,500 circulars, and stereotype plates.

It may be added that the Deputy Recorder, after giving the quack a caution, allowed him out on his own recognizances in £200, to come up for judgment when called upon. Dr. Alexander B. will, without doubt, bid Barnsbury adieu, and re-appear in a new neighbourhood under a new *alias*.

Dr. Barnes has his imitators in this city, within a stone's-throw of the City Hall and Dublin Castle, and elsewhere in more fashionable quarters. In one of the leading thoroughfares of this city a paper is published which is an *open sesame* for the most

villanous class of advertisements—medical swindling, betting swindling, money-lending swindling, indecent and obscene—and there are other daily prints whose proprietors are pocketing the proceeds of the same vile trade.

Once more we appeal to the virtue and mainly sense of the citizens of Dublin to denounce these papers by name, burn them in the streets, and vindicate the character of their city, which was whilom a moral one. We also appeal to the authorities at Dublin Castle to arrest forthwith these medical scoundrels, who are debauching the minds of the young, and robbing both old and young. What does the detective department of Exchange-court exist for, if not to hunt up robbers and vagabonds of every stamp, and bring them to justice? Let the receivers, or, in other words, the newspaper publishers of these vile advertisements, be also publicly noticed to give up their vile traffic.

We trust that we will not have to speak again in complaint of the police or other authorities whose duty it is to bring vagabonds to justice who are under their very eyes. The police in London are weekly making raids, and are doing the public a service thereby. It is the bounden duty of the Police Commissioners in Dublin to give instructions to the same effect.

Swindling money-lenders, medical imposters, adulterators of the food and drink of the poor, and all of a like caste, must be prosecuted to conviction, and "stamped out."

CIVIC LYRICS.—No. IX.

THE JUNTA IN COUNCIL.

"Taking French leave."—*Old saying.*

Who are those, men call banditti,
Reft of shame, remorse, or pity,
The mud-throwing fishwife city?—

(A voice) *Order!*

Who are those whose extra-vocal
Powers to Billingsgate are focal,
The Pill-lane eclipsing local?—

(Voices) *Question!*

Who are those whose rates specific
Are dealt in doses soporific,
The blood-extracting, scorn'd Civic?—

(A pause) *Sensation!*

Who are those who'll ever work ill
With their scheming, draining stork-bill,
Ridiculed from Cove to Cork-hill?—

(A bolt) *Thunder!*

True men act, but tricksters peddle;—
Some deserve the stocks and treadle,
More the cat and leather medal—

(A flash) *Lightning!*

Down with those who beg and batten,
Murd'ring English with dog Latin,
Libelling the land of Grattan—

(Exit) *Collapse!*

GENERAL MORAL.*

The less in men, like small-necked bottles,
The noisier flow comes through their throattles.

CIVIS.

* "Narrow-minded men are like narrow-necked bottles, the less they have in them the more noise it makes in coming out."—*Swift.*

ART IN AMERICA.

SOMEONE wrote once that no matter what grandeur might in future generations belong to America, that she would never be worth an "old song." The writer of course meant a good old song,—one of those full of deep pathos, homely, enchanting, patriotic, historic, and thrilling. America is, however, worth many a fine young song, and many other finer things. In sooth she has no grand old mediæval castles—the glory of the old countries,—but she has many features, modern though they are, peculiarly her own. In literature, art, and science, she is advancing with rapid strides. We learn from an American correspondence that the Metropolitan Museum of Art of New York City gave an exhibition of its collections on the evening of the 20th ult., at a temporary gallery in the Fifth-avenue. This organization is the first determined effort that has been made in America for the establishment of a museum of the fine arts worthy of the country. The sum of 500,000 dollars has

been appropriated by the city for the erection of permanent buildings, in the Central Park, for the reception and custody of the treasures to be collected, and 200,000 dollars have been given by private individuals of taste, wealth, and liberality, for the purchase of paintings and statuary as a beginning. One hundred and seventy-five pictures were in the first exhibition, chiefly of the Dutch and Flemish schools, embracing works of Van Dyck, Teniers, Jan Steen, Van der Helst, Jordaens, Snyders, Wouvermans, and Rubens, but also some very good specimens of French and Italian art, a Greuze, a Poussin, and two of Guardi, the Spanish and English painters being represented by a Velasquez and a Sir Joshua Reynolds. To Americans who have never been abroad the old masters, if known at all, are known only in blackened or faded canvases of doubtful authenticity, and it was therefore with a sense of surprise that many of the citizens looked at the little gallery of the Metropolitan Art Museum, while the travelled visitor—to whom Rubens and Van Dyck, Greuze and Sir Joshua, had become familiar in the great collections of London, Paris, and the Hague—was delighted to behold a few unquestionable masterpieces, which will serve as a nucleus for the future great gallery of New York.

It would be a fallacy to suppose that America will not in course of time be worth many a great "Old Master" of her own, as well as worth many fine old songsters, exclusive of her Negro melodies.

We cannot look on with indifference at any advancement made by the American people. Thousands of them are of Irish, English, and Scotch blood, hardy Celts and Saxons, and as our descendants, they are proving themselves worthy of the parent stock in the matter of inventive genius at least.

CIVIC EXPENSES—THE RIDE TO LONDON.

As the question of defraying the expenses of the deputation to London on the occasion of the Thanksgiving Day, is a very pertinent one, we wish to apprise the ratepayers that it will be illegal for the Corporation of Dublin to draw on the public money for the purpose.

Several local boards and vestries in London have already disallowed all charges for the preparations on that day with which any of their board or members were connected. The members have had to pay for their decorations and journeys out of their own pockets, and very justly so. We sound the warning in time, perhaps, to put some folk upon their guard, as the Government auditor may hereafter make surcharges that will not be pleasant.

We have had already a scandal, which will live for a long time, about the audit—an audit which was shirked with the most brazen and barefaced effrontery.

Avowals sufficient have already been made to warrant us in expressing very grave doubts about the honesty of some individuals, notwithstanding the explanations the public were vouchsafed.

There is a tendency to play fast and loose with public funds, as if they could be obtained at pleasure. If deputations wish to do honour to themselves, or honour to the Queen, let them go at their own expense, and let them have some feeling of compassion or shame in their hearts, and think how their conduct is tended to sink and degrade the city and impoverish the citizens. Hospitality is one thing; but hospitality becomes little less than rascality when other people are obliged to pay for the cost.

There must be an end of voting away public money for deputations in every shape, unless those of a special or serious nature, where the business cannot be possibly performed at home, or through the representative of the Government. Where the individual is benefited either by a ride for health or enjoyment he should have the common sense and decency to pay for it out of his own pocket.

NOTES ON THE ECCLESIASTICAL
ARCHITECTURE OF IRELAND.BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A. SCOT.

(Continued from page 64.)

EARLY IRISH ART.

THE date of the introduction of sculptured decoration into Irish architecture is no doubt a debateable point. English writers have considered it presumptuous in us to claim a precedence in point of time as regards its use. An examination of the question at issue, however, will shew that we are not without some authority for doing so. I freely admit that the Norman style was developed in the sister island to an extent never attempted in this country, and cathedrals and churches erected there on a scale of grandeur far exceeding anything ever executed in our island. But we conceive, we are justified in claiming the use of sculptured details in our small churches, at a period when such do not appear to have been used in England, as far as existing remains evidence. I freely admit, that looking at the matter superficially, it would appear that—taking into account the proximity of the two countries, and the advent of Norman power into Ireland in 1162—there was an undoubted probability that we may have been indebted to England for this improvement. But it so happens that this nearness of the islands did not generate that social and friendly intercourse which would produce such a result. It is true that, in the primitive age of the Irish church, she sent many missionaries into England, who were well received there, and were the means of the conversion of many districts of the country; but at a subsequent period the Saxon church began to look with disfavour on the learning and discipline of these holy men, and with jealousy on their simple and austere piety, and an amount of hostility was engendered that broke off intimate relations between both churches for a long period. This occurred in A.D. 664. Another obstacle was the strong national hostility existing between the Gaedhil and the Saxon—one which has never slumbered, and exists even to the present day. On the other hand, the traditions of the Irish always pointed to Southern Europe as the original home of their ancestors, and from the earliest ages a constant intercourse was maintained by them with Gaul and Spain—sometimes of a hostile character, and at others of a commercial one; at a later period it assumed a religious aspect. From the sixth to the eleventh century the learning of the Scoti was proverbial on the continent, so was also their love of religious enterprise. During the above periods their missionaries were found in every country in Europe; their love of learning was so ardent, and they considered it so essential to the spread of the gospel, that wherever they founded a church they also established a school, many of which became afterwards famous. In France they founded houses at Peronne, Toul, Poitiers, Amboise, Beaulieu, Luxeuil, and Strasbourgh. In Belgium, at Namur, Liege, Gueldres, Treves, Hautmont, Soignes, and others. In Switzerland, at St. Gall, and Seckingen. In Italy, at Tarentum, Lucca, Faventum, Bobbio, and Fiesole. St. Killian was the apostle and martyr of Franconia; Virgilius was Bishop of Salzburg in 756; Modestus the first Bishop of Carinthia, and St. Sedulius Bishop of Oretto, in Spain, early in the eighth century. The result of such a state of things was this, that a constant intercourse was maintained between Ireland and all parts of Christendom; numbers of foreigners, attracted by the fame of the Scoti schools, visited Ireland, and found their way to the great seminaries then existing at Lismore, Mungret, Clonard, Louth, Bangor, &c. Learned Scots also, attracted by the success of their countrymen, visited them in all parts of Christendom, finding their way to Rome and Byzantium, and returning home to delight and instruct their neighbours with the wonders they had seen.

Such a state of things could not fail to have had an important influence on Irish art; and that it had, is evident from a study of the subject. The passion for ornamental decoration is traceable among the Gaedhil at a very remote period; one of its earliest developments is to be found in the sepulchral chambers on the Lough Crew hills, whose megalithic sculptures have been so ably described by Mr. E. A. Conwell, in the *Proc. Royal Irish Academy*, vol. ix. A still further development is to be noticed in the sculptures connected with the souterrain under the great tumulus at New Grange; here, carved on stones at the entrance, and on the building stones of the crypt, we find ornamental combinations of well-formed scrolls, rectangular panels divided into triangles by diagonal lines, sunk lozenge panels, lines of chevrons, concentric circles, &c., all well executed, and evidently the germs of many of the ornaments subsequently used in illuminating MSS. To this last speciality of the Irish scribes is to be attributed the wonderful development of the art of calligraphy and illumination, which appears to have originated at an early period, not ascertained, and which must have attained a wonderful degree of excellence in the sixth century, when was produced that marvellous specimen of ornamental design, the Book of Kells. It is not within the scope of my present subject to enter fully into the matter of early Irish art—one of so extensive a nature as to require a special treatment, and that by a very competent artist and antiquary.

In the year 1851 the Rev. Dr. Ferdinand Keller, of Zurich, eminent for his taste and erudition, communicated a tract to the Antiquarian Society of that city, entitled "*Illuminations and Fac-Similes from Irish Manuscripts in the Libraries of Switzerland*." To the learned Dr. Reeves, of Armagh, we are indebted for a translation of this valuable tract, contributed to the *Ulster Journal of Archaeology*, vol. viii., with a preface and notes, and some beautiful illustrations from the originals.

Mr. J. O. Westwood, an eminent English palaeographer, and author of the *Palaographia Sacra Pictoria*, thus writes on Irish art:—"Ireland may be justly proud of the Book of Kells. The copy of the gospels traditionally said to have belonged to St. Columba, is unquestionably the most elaborately executed manuscript of early art now in existence." Again, he writes:—"At a period when the fine arts may be said to have been almost extinct in Italy, and other parts of the continent—namely, from the fifth to the end of the eighth century,—the art of ornamenting manuscripts had attained a perfection almost miraculous in Ireland. . . . The invention and skill displayed, the neatness, precision, and delicacy, far surpass all that is to be found in ancient manuscripts executed by continental artists."

Mr. M. Digby Wyatt, an eminent architect and a writer upon ornamental design, pays the following tribute to Irish art and artists:—"We freely confess, that in the practice of art at least, they (the Irish) appear in advance both in mechanical execution and originality of design of all Europe, and the Anglo-Saxons in particular. . . . In close connection with this (the Irish) church, existed a school of art remarkable for its sense of the graceful and the grotesque, and for its superiority in point of ornamental design to any other style of the same period. That its influence extended much farther than is generally supposed would appear certain, and not only did Scotland, Wales, Cornwall, the North of England, and Scandinavia adopt its peculiar system of ornament, but some of the most celebrated illuminated works in the various libraries of Europe, are now discovered to have emanated from that school."—(M. D. Wyatt's *Handbook to the Byzantine Court*.)

Dr. Ferdinand Keller, of Zurich, an eminent critic on art and archaeology, in the interesting tract already alluded to, has the following eulogium on ancient Irish art:—"It must be admitted that Irish calligraphy, in that stage of its development which produced these examples, had attained a high degree of

cultivation, which certainly did not result from the genius of single individuals, but from the emulation of numerous schools of writing, and the improvement of several generations." Dr. Keller's description of the principles of Irish MS. ornamentation is in the main truthful, and worth quoting. He considers that it consists—

1. In a single band or number of bands, interlaced diagonally and symmetrically, so as to form by their crossings a great variety of different patterns. . . .

2. In one or two extremely fine spiral lines, which wind round each other, and meet in the centre, while their ends run off again, and form new spirals.

3. In various representations of animals resembling birds, lizards, serpents, and dogs, which are often stretched out lengthways in a disagreeable manner, and interlaced with each other, while their tails and tongues are drawn out into bands.

4. In a row of broken diagonal strokes, which form different systems of lattice-work, resembling some kinds of Chinese ornaments.

5. In panelling, generally composed of triangular compartments or other geometrical figures, which represent a kind of draught-board, or a mosaic of variegated stones.—(*Ulster Jour. of Archaeology*, v. viii., p. 224.)

Dr. Keller's acquaintance with Irish MS. art was limited. Had he a more extended knowledge of examples, he would doubtless have extended his notice of the principles on which Irish ornamental work is founded. I have thus given the opinions and criticisms of authorities entirely competent and independent. I have not quoted a single native judgment on the subject, but that of foreigners of the highest reputations as art-critics.

Having thus established the early excellence of native art, it becomes a matter of exceeding interest to inquire, What was its origin? Was it the spontaneous emanation of that taste and exuberance of fancy peculiar to the Celtic races? or was it founded upon foreign models introduced by monks or *literati* in their continental travels? Both ideas have been maintained, but the preponderance of evidence is decidedly in favour of native invention. I shall here quote the opinion of some recognized authorities.

M. Digby Wyatt, in his *Art of Illuminating*, writes:—"It is to Ireland that the rich style of manuscript ornamentation is due." And again:—"Irish art was original." Dr. Keller, already quoted, thus expresses himself:—"On the other hand they (the Irish) must be regarded as the inventors of a style of decoration at once highly fantastic and extremely tasteful, the specimens of which, as far as artistic value is concerned, far excel mere paintings."—(*Ulster Jour. Arch.*, v. viii., p. 219.) That this art originated about the period of the introduction of Christianity, was a favourite theory with some, but a little consideration will shew that this could not have been the case. All art is of slow growth; centuries of cultivation is requisite to produce even mediocre artists. What progress had England made in the fine arts up to the sixteenth century (architecture alone excepted), with all her great advantages? And as a corroborative fact we find, that the earliest examples of illuminated work known to exist are by far the purest in taste, the richest in effect, and the most accurate in execution. This view has been maintained by Dr. Keller, whose opinion is thus given in the work already quoted from:—"If we contemplate the limited range of this Irish pictorial art, in its delineation either of actual existence or of fantastic creatures, such as we find it in the numerous manuscripts recently discovered, it cannot be denied that a certain peculiar style is manifest, which maintained itself for several centuries without change, and which came to be a fixed criterion from which no artist ventured to deviate; and, moreover (and this is especially worthy of notice), that its earliest productions are unquestionably the most perfect, whereas the latest specimens indicate the decline of the art. Hence we are obliged to assume that there had been a previous

period of development of this style, which we find in Irish manuscripts to have reached its acme of perfection, and which presents no appearance of transition. If, as Dr. O'Donovan has shewn, the execution of the Book of Kells, the Irish manuscript which is most distinguished for its writing and illumination, is to be referred to the sixth century, then certainly, in our opinion, the time which elapsed between the introduction of christianity into Ireland and the appearance of Irish art is much too short to permit our assuming that this art had formed itself into such an established type during the interval."—(*Ibid.*, p. 229.) The learned critic, however, in another paragraph, seems to hint that the Scotch artists caught their inspiration in a great degree from the banks of the Nile. "That the Irish system of ornamentation," he writes, "does actually find an analogy in Eastern countries, is proved by the illustrations published by C. Knight, in a small work on Egypt. We there find the serpentine bands of the Irish ornaments appearing already in the earliest Egyptian and Ethiopic manuscripts, and with a similarity of colour and combination truly astounding."—(*Ibid.*, p. 225.) It cannot be denied that the exuberance of fancy, versatility of design, richness and harmony of colour, and the patient and accurate manipulation, which are the distinguishing characteristics of this style, cannot be attributed to the genius of any cold northern race. Hence, it is, we find that the people among whom it originated are, according to their own cherished traditions, from the far east; the Scythian or Scotic migration who passed through Lower Egypt and Northern Africa, by the pillars of Hercules into Spain, and from thence into our western isle. That in the land of their final refuge they should have developed kindred tastes with the parent races still sojourning in the lands from which they originally came, is not very surprising. Hence we may in some measure account for the consanguinity between Irish and Egyptian art rather than from any pretended intercourse of Irish monks with the land of the Pharaohs, or *vice versa*. Dr. Waagen, the celebrated German art-critic, contributed a paper to the 11th No. of the *German Art Journal* (18th March, 1850). In that paper the learned doctor takes an opportunity of recalling some statements made by him in a previous work, in which he attributes the execution of the Book of St. Cuthbert and other kindred manuscripts to the Anglo-Saxons, and states his belief that they were executed by Irish artists or their pupils; and he gives it as his final conviction that this special art is due solely to the inventive genius of that race, as follows:—"From the foregoing statements it may be assumed as a settled fact that the style of ornamentation consisting of artistic convolutions and the mingled fantastic forms of animals, such as dragons, snakes, and heads of birds, of which we discover no trace in Græco-Roman art, was not only invented by the Celtic people of Ireland, but had attained a high development. The extraordinary influence exercised by this style on the Romanic, as well as the German populations of the entire Middle Ages, is well known, and is also easily explained. It was introduced and spread in all directions by those numerous seminaries for the propagation of Christianity which emanated from Ireland, and the more so, as the Irish continued a long time to maintain a connection with their foundations abroad."—(*Ulst. Jour. Arch.*, vol. viii., p. 308.)

From all that has been adduced I think we may safely infer:—

- 1st.—That the Irish race originated this peculiar style of ornamental decoration, which in point of fertility of invention, accuracy of delineation, and richness and harmony of colouring, was unrivalled, and had attained its acme of perfection in the 6th century.
- 2nd.—That taking into consideration the slow progress of art, we must admit that it had been practised in Ireland long before the introduction of Christianity, to the iconoclastic zeal of whose professors is in

all probability attributable the destruction of many valuable pagan manuscripts and works of art.

I have long been of opinion that the pre-Christian civilization of the Gaedhil has been greatly underrated. It has, in fact, been denied by a modern school of Irish antiquaries from an affected sentimentality that attributed everything in letters, arts, &c., to the introduction of St. Patrick and his disciples, as if christianity would not achieve a far more glorious and difficult triumph in overcoming the prejudices of a civilized race, the influences of a long-established religious system, and the consolidated power of a learned and astute priesthood, than by the conversion of an ignorant and unlettered race, such as those writers have indulged the habit of representing their countrymen to have been.

I have before remarked, that the germs of Irish ornamental art may be found in stone-carvings of a remote age still in existence—I allude particularly to the great tumulus at New Grange. The leading features of this wondrous sepulchral mound, the largest in the British islands, are well known. Its age has not been ascertained; it was violated by the Danes in A.D. 862, who, according to the *Annals of Ulster*, searched its cave, as well as those of the tumuli of Dowth and Knowth. It is mentioned in connection with the death of Cormac Art, which event occurred in A.D. 266.

In our oldest MSS., such as *Senchus-na-Relec* and the *Dinnseachus*, *Brugh-na-Boinne*, as this assemblage of tumuli is named, is attributed to the Tuatha-de-Danaan, having been erected by them as the regal cemetery of this mysterious race; in the latter named work the graves and monuments of individual celebrities of that people are indicated. The Tuatha-de-Danaan were the colony who preceded the Gaedhil in the occupation of Ireland, and as all our ancient MSS. agree in referring the construction of these great sepulchral mounds to them, we can form some opinion of their hoar antiquity, which may reach to a period of one thousand years before the christian era, and cannot be certainly less than five hundred.

Brugh-na-Boinne was subsequently adopted as the cemetery of the Kings of Tara. Those who would wish to see a graphic and accurate description of the sepulchral monuments of the *Brugh* will find such in Sir William Wilde's *Boyne and Blackwater*, decidedly the best book of its kind ever compiled. In the sepulchral chamber of the New Grange tumulus are to be seen a number of carvings on the stones used in its construction. These have been partially illustrated by Sir William Wilde in the above-named work, and by Mr. Wakeman in his *Handbook of Irish Antiquities*. They have not, however, attracted the notice they deserve in connection with early Irish art.

Particular attention has been paid to these carvings in a paper read before "The Oxford Architectural and Historical Society," March 1st, 1864, by the Rev. H. Estridge, on *An Ancient Tumulus at New Grange, Ireland*. I shall pass by his very careful description of the mound and its souterrain, and refer to his account of the carvings. The first is on a stone lying at the entrance of the long gallery. He describes it as being 10 ft. long, 2½ ft. high, and 2½ ft. wide; rather irregular in shape, and having on the front face a panel formed of spiral coils, in two lines, enclosed by a border of chevrons, at the left hand side of which is a narrow upright panel formed of two interlacing chevrons (see fig. 6, pl.). In the long gallery, and about 45 ft. from the entrance, at the left hand side, he found one of the uprights carved. He says:—"The pattern of the decoration was of precisely the same character as that on the large stone at the entrance."—(*Gents' Mag.*, June, 1865). On one of the large vertical flags in the western recess he found a similar style of carving to the above, but varied in the combination of the spiral coils and chevrons. Referring to the eastern recess, he writes:—"The carvings in this recess are most beautiful, and require particular notice"—(*Ibid.*).

He describes the under surface of one of the covering stones of this recess, as "almost entirely covered with the same curious spiral decoration as occurs in other portions of the chamber; some groups resembling the pattern on the large stone at the entrance, and others being like fig. 2, plate."

Some of the stones which have no surface decoration are carved on the edges in such patterns as figs. 3, 4, plate. "All the carving," says Mr. Estridge, "in this recess is very regular in its design, and the whole effect is very graceful and elegant, in spite of the huge size of many of the stones." But the most singular feature connected with this chamber is the fact that some of the most beautiful of the sculptures are carved on the back of, at least, one of the stones; this occurs in the N. recess, where one of the upright flags has fallen forwards. Mr. Estridge writes:—"Here was by far the most perfect piece of carving which I saw in the chamber. Its pattern was like fig. 1, pl. I think that there were three such groups as I have there represented; beautifully regular, and as deep and fresh-looking as though they had been cut yesterday. Its position shows that it, and most probably all the decorated stones, were carved before they were built in; but it is very difficult to understand why so much pains should be bestowed on ornamenting a stone which could never be seen"—(*Ibid.*). I have thus given a description of these truly antique carvings, not from the pen of an enthusiastic Celt, but from that of a cool, prudent, Saxon antiquary; and we must, I think, concede that the Irish, at a remote pre-historic period, produced these surface carvings so elegant in design and accurate in execution, as to elicit the admiration of modern educated taste. The last fact mentioned by the above-named writer disposes of any surmise as to the sculptures being of a later date than the erection of the tumulus; on the contrary, the effect of the evidence lies the other way; the position of some of the carvings, on the back and edges of the stones, show that they must have been executed before the construction of the chamber, and that they had probably been used for other purposes previously. In the same manner we find Ogham-inscribed monuments used up as mere building materials in the construction of Rath-caves. In these rock-sculptures then, we see most undoubtedly the germs of that art for which the Irish in subsequent ages became so famous. These forms can be traced downwards in the illumination of manuscripts, upon grave-slabs, and on the monumental crosses. There is no doubt, however, that we can observe the influence of Greek and Byzantine Art upon that of Ireland. The early Irish Church appears to have had strong sympathies with the Eastern Churches, and Irish monks found their way not only to Byzantium but also to Jerusalem, Alexandria, and the churches of Asia Minor. To this intercourse we can attribute the introduction of the Fret and Guilloche, so profusely used in Irish work, and with a variety and effect never seen in foreign works. Some beautiful examples of the use of the fret will be found on the grave-slab of St. Berechert (*Ulst. Jour. Arch.*, vol. vi., p. 267). The exact age of this elaborately carved stone has been fixed, as the saint died A.D. 832 (*Ann. Four Mast.*). Also upon the slabs of Suibhne Mac Maelhumai and Conaing Mac Conghail, given in Dr. Petrie's work, who identifies the first as being alive in A.D. 981, and the second as deceased in A.D. 821. Plates 12 and 16 of Miss Stokes's *Christian Inscriptions* also exhibit good examples of its use; but Mr. Henry O'Neill's work on the *Sculptured Crosses of Ireland* is the great repertory for examples of carved decoration. It is worthy of remark that, though the Irish exhibited wonderful fertility of invention, taste, and fancy in design, the utmost accuracy in drawing, and of harmony in colouring—that peculiar class of ornament in which they excelled, their attempts at representing the human figure, either in painting or sculpture, were decided failures. They appear to have had no idea of light

and shade, or of perspective, and very little of the proportion of the human subject; even their representations in outline of birds, lizards, dogs, are grotesque and exaggerated. In criticising ancient works of sculpture in Ireland we must take into account the weather, wear of ages, and other defacements they have undergone. Probably could we have seen the monumental crosses at Monasterboice, Kells, or Clonmacnoise fresh from the workmen's hands, we would be led to form a higher idea of their executive skill than we can from the worn and damaged remains now existing.

As the architectural student is frequently at a loss for examples of early Irish ornament, I would point out for his information the following sources:—"Mr. Henry O'Neill's great work, *The most interesting of the Sculptured Crosses of Ancient Ireland*; by the same author, *The Fine Arts and Civilization of Ancient Ireland*; Owen Jones's *Grammar of Ornament*, plates 63, 4, 5; Mr. J. O. Westwood's *Palaeographia Sacra Pictoria*; Mr. Henry Noel Humphrey's *Illuminated Works of the Middle Ages*; Dr. Petrie's *Round Towers*; Miss Stokes's *Christian Inscriptions*, now publishing, two parts issued, and which bids fair to be a valuable contribution to our monumental archaeology; Dr. Ferdinand Keller's monograph already alluded to (*Ulster Journal of Archaeology*, vol. viii.); Dr. John Stuart's great work, *The Sculptured Stones of Scotland*, published under the auspices of the Spalding Club, is also of great value to the student of Gaelic ornament. The Rev. J. G. Cumming's *Runic Crosses of the Isle of Man* may also be studied, as their ornamentation is Irish.

BANBRIDGE COURT-HOUSE.

For the erection of the new Court-house at Banbridge there were four tenders, at the respective sums of £2,750, £3,095 and £2,465. The amount of the fourth tender was not stated, but it was mentioned that it was a little above the last. The sum allowed, we believe, was not to exceed £2,500, and as Mr. Thomson's was the lowest, it was ordered to be accepted. The foreman of the court volunteered the expression that the two first tenders were "both out of court," because they exceeded the stipulated sum; but we would like to know his reason for withholding the amount of the tender which was "a little above" the accepted one. This is surely not the way to do public business. The lowest tender, though generally, is not always accepted, and it may be often most advisable to accept the second and even the third lowest, for many reasons known to the public and the profession.

THE DUBLIN QUAY WALLS AND BRIDGES BILL.

Sir John Gray was as usually adroit when called upon to make a statement on the occasion of Messrs. Casey and Clay's letter respecting the Quay Walls and Bridges Bill. No amount of dust-throwing nor wire-pulling—the latter particularly, which is not often nakedly exposed—can blind us or others to the facts that the promoters of the bill, and a certain quota of the Dublin Corporation, are one and the same.

It is a mere blind, and the pretended opposition spoken of on the part of the Corporation, is but in keeping with their usual character of misleading the public, and while pretending to do one thing and helping the more effectually to accomplish the other.

We said on a former occasion that we were not disposed to entrust any more powers to a body who mismanaged our local affairs in such a scandalous manner, and though there are good points in the bill, the object of it was to enable the Corporation to tide over its present difficulties at the expense of the unfortunate ratepayers of the city, whose money they have already shamefully squandered. It is all very liberal, no doubt, to extend the area of the taxation of the county,

and as we are advocates for reducing the taxation, we would have no objection to make if this was what was in view.

Carlisle Bridge indeed needs improvement; but the Corporation have long since stultified their action and deeds on this question, and the ardour of their spokesmen and leaders admits of but one explanation which it would be an insult to our citizens to suppose they did not thoroughly understand.

The whole question lies in a nutshell, and that very troublesome and oftentimes very useful member, Mr. French, is not far astray. We will, however, when the matter ripens a little, crack the nut, and exhibit the shrivelled kernel in all its blind hollowness and mockery.

IRISH MAIN DRAINAGE IN THE EIGHTEENTH CENTURY.

CONCLUSION.

Our first article on the real main drainage of Ireland in the eighteenth century (and since) having attracted considerable attention and suggested a parliamentary enquiry, we will proceed to supply some lists of names, facts and figures not easily accessible to the majority of readers. Among the names of those we gave in the preceding lists, who figured in days past as absentees in part, wholly absentees, or those mostly resident in the country, will be found persons whose ancestors, as well as themselves, held large possessions in Ireland, and whose representatives in name still hold landed property of a great extent. Others, again, held merely official appointments under the Crown, but subsequently either themselves or members of their families were elevated to the peerage or obtained other distinctions. It is scarcely necessary to describe at this date what were the various services for which the large pensions paid to so many were obtained. The politician or the historical student, if so disposed, can find out these particulars for themselves whenever they are inclined of pointing a moral or adorning a tale. Our purpose, as we said on a former occasion, is simply to show the injurious effects of absenteeism from an industrial point of view, the terrible drain it must have always been to the country, and that, while it continued, it could not be otherwise than subversive of all local or national improvements. We know argument may be adduced or coined to show that evils may exist and do exist in districts where resident landlords are the rule, but this description of logic will not bear the brunt of examination. As we promised, we will now submit an alphabetical list of Irish absentees about the period of 1782. From this year until 1800, although an Irish legislature sat in Ireland, absenteeism to some extent continued; but during these eighteen years it had considerably diminished, and the fact of it is evidenced in the number of public buildings and private mansions which were erected, not only in Dublin, but throughout the country. Numerous factories and industries were also floated, and roads, bridges, and inland navigation projects were started and carried out in all parts of the kingdom. After 1800, and down to 1810, there was a terrible collapse of native industries, but few buildings were erected, hundreds of mechanics emigrated to America and England, and bankrupts were as plentiful in the capital as blackberries in autumn. The nobility and gentry and those holding official appointments absented themselves, and deputies in the latter case mostly performed the duties of the principals, who spent their summer months in London, Paris, or other Continental cities. Before proceeding further we append the lists:—

A.			
Abercorn, Lord	£18000	Allen family	£5000
Ashbrooke, Lord	5000	Albemarle, Lord	1000
Annesley, Arthur, Esq.	4000	Ashon, Mr.	800
Annesley, Francis, Esq.	2500	Atkinson, Dr., Diocese	
Alexander, — Esq.	1000	of Down, living and	
Aston, — Esq.	800	estate	1100
Ashroby, — Esq.	1700	Agar, Mr. George, Co.	
Adair, Robert, Esq.	1400	Kilkenny	6000
Adair, James, Esq.	1200	Ambrose, Mr.	600

B.			
Beshborough, Lord	£10000	Belmore, Lady	£1000
Bellew's, Lord, heirs	4000	Browne, Hon. Mr., Lord	
Beaulieu, Lord	4000	Kennmare's son	3000
Bingley's, Lord, heirs	4000	Bernard, Sir William	3000
Blunden's, Lord, heirs	4000	Blackler, Mr.	1500
Barry, Hon. John	4000	Brabazon, Hon. Mr.,	
Bernard, Francis, Esq.	10000	brother to Lord Meath	3000
Bernard, William, Esq.	1000	Beaufort, Rev. Dr., Rec-	
Barry, Hon. Richard	1000	tor of Navan	300
Burton, General	700	Barton, Mr., Co. Tipperary	3000
Bazil, Edmund, Esq.	4000	Butler, Hon. Mrs., widow	
Barry, Arthur Esq.	1600	of the Hon. Robert	
Bridges, — Esq.	1500	Butler	800
Butler, — Esq., Bally-		Bagnell, Mr., jun.	600
ragget, Co. Kilkenny	7000	Blackwood, Sir Jhn., Bart.	4000
Barrymore, Lord	10000	Batty, Mr., Co. West-	
Boyd, Alexander, Esq.	1200	meath	1200
Bunbury, — Esq.	3000	Blennerhasset, Mr., Co.	
Baldwin, — Esq.	4000	Kerry	4000
Butler, Mr.	1000	Blake, Mr., Co. Mayo	3000
Barre, Colonel	600	Boyle, Mr. John	800
Burke, Mr. Edmund	500	Berry, Mr., at Bath	800
Bristol, Lord, Bishop of		Brown, Mr., at Bath	800
Derry	7000	Bath, Irish money spent	
Bellamont, Lord	5000	annually at	—
Blakeny, Mr., Limerick	2000	Bonham, Mr. Warren	
Berkley, Mrs., widow of		Francis	1400
Bishop of Cloyne	—	Bangor, Lady	1000
Blosset, Mrs., widow, and		Bligh, Mr., nephew and	
three daughters	—	heir to the late Gen.	
Belvedere, Lady Dowager	500	Bligh	4000
Browne, Mr., Co. Kildare	3000	Brady, Mrs., widow of	
Bath, Mr., Navan	1000	the late Chas. Brady,	
Burgh, Mr., Bert	2000	and daughter	600

C.			
Carnarvon, Marquis of	£2500	Cane, Mr., Inchicore, Co. Dublin	£1200
Cork, Earl of	6500	Cope, Mr., Loughall, Co. Armagh	5000
Catherlough's, Lord, heirs	2500	Courtown, Lord	4000
Courtney, Lord	15000	Clarendon, Lord	—
Carysfort, Lord, and family	3000	Caulfield, Mrs., Strad- bally, Queen's County	500
Cahir, Lord	10000	Craddock, Mr.	800
Chichester, Mr.	1000	Car, Colonel	—
Campbell, Mr.	2500	Christmas, Mr., son of Mr. Christmas, Water- ford	3000
Carr, Mr.	700	Cootes, Purdon, heirs	1200
Carr, Mr.	1000	Corbally, Mr., son of Mrs. Corbally, Co. Meath	—
Clanricarde, Lord	12000	Carter, Mr., Co. Kildare	2000
Clive, Lord	200	Cuffe, Rev. Mr.	400
Corporations, several in England	—	Connolly, Lady Anne, and daughter	4000
Conyngnam, Lord	9000	Crofton, Mrs., widow	400
Clive, Mr. George	1500	Cavendish, Sir Henry, Bart.	2000
Clifford, Lord	6000	Cooke's, Mrs., two daugh- ters of the late Alder- man Thomas Cooke	2000
Clermont, Lord	8000	Chetwood, Mrs., Co. Limerick	1500
Carbery, Lord	5500	Cosby estate, Stradbally, Queen's County	3000
Charleville, Lady	4000	Colthurst, Mr. William	700
Cootes, Sir Eyre	2000	Cadogan, Lord, Co. Meath	1500
Chandos, Duke of	2000	Clutterbuck, Miss	400
Cavanagh, Mr.	1500		
Cupenden, Mr.	1500		
Coningsby, Lady	2000		
Corden, Mr., Co. Tip.	2500		
Clayton, Mrs.	1000		
Carr, Mr.	700		
Cramer, Sir Jm. Coghill	2000		
Campbell, Mrs.	—		
Colthurst, Sir John	3000		
Clarke, Mrs., widow of the late Mch. Clarke, Esq., and son,	1000		

D.			
Devonshire, Duke of	£18000	Dartrey, Lord	£2000
Dutton family	12000	Deane, Lady	1000
Donegal, Lord	44000	<i>Derry, London Company</i>	—
Darnley, Lord	8000	Dunbar, Mrs., widow	3000
Dunmley, Lady Dowager	4000	Dawson, Mr., Ardee	2000
Digby, Lord	4000	Drogheda, Lord	5000
Dysett, Lord	2000	Davey, Hon. Mrs., late	—
Dundas, Sir Lawrence	4000	Wilson, of Bilbao, Co.	—
Dacre, Lord	3000	Limerick	800
Dorset, Duke of	2000	Delany, Mrs., widow of	—
Damer, Mr.	2000	Dean Delany	400
Dillon, Lord	9000	Donville, Mrs., widow	3000
Denise's, Sir Peter, heirs	1000	Dudley, Lady	500
Derby, Lord	3000	Dungannon, Lord	—
Donellan, Mr.	2000	Downes, Rev. Mr.	1500
Delany, Dr.	1000	Dawson, Hon. Miss,	—
Dodwell, Mr.	2000	sister of Lord Carlow	500

E.			
Egmont, Lord	£6000	Ely, Lord	£15000
Edwards, Mr.	3000	Erne, Right Hon. Lady	—
Ellis, Mr. Welbore	2800	Enwright, Mr., Co.	
Edmonston, Mr. Alex.	800	Carlow	2000
Echlin, Lady	800	Ensor, Mr.	1000
Egremont, Lord	1200	Erskine, Dean, of Cork	800
Echlin, Mr.	800		

F.			
Fitzmaurice, Hon. Thos.	£9000	Fox, Mr., Co. Longford	£2000
Fane's, Lord, heirs	6000	Fitzgerald, Mr., late of	
Fitzwilliam, Lord Visct.	5000	Dawson-street	2500
Fortescue, Lord	1500	Fitzmaurice, Mrs. Hester	1000
Fitzwilliam, Earl, his		Fitzgerald, Lady, Co.	
own and the Rock-		Cork	1400
ingham estate	30000	Foster, Lady Elizabeth	—
Fingal, Lord	3000	Fitzgerald, Mr., of Glin,	
Freeman, Mr.	3000	Co. Limerick	4000
Ffoliot, Mr.	2000	Fortescue, Mrs., and	
Foster, Miss Tuffnell	1000	four daughters	2500
Freke, Mrs., widow, and		Franks, Messrs., Co.	
daughter	4000	Cork	2000
Fitzwilliam, Messrs.	1000	Fitzsimons, Mr., Co.	
Fitzwilliam, Mr., their		Wicklow	1000
uncle	5000	Forward, Lord Clon-	
Fitzgerald, Lord Chas.	2500	more's son	1000

G.			
Grandison, Lord	£15000	Gore, Mr., brother to	—
Gage, — widow	900	Lord Ross	—
Gardiner, Mr. Sackville	800	Glover, Mrs., sister to	—
Gregory, Mr., Co. Galway	3000	Mrs. Pomeroy	£2000
Glandore, Lord	4000	Grady, Mr., Co. Lim'ick	1000
Gorge, Mr. H.	3000	Gorge, Mr. Rd., married	—
Goddard, Mrs., Kilkenny	700	to Miss Meredith	2500

H.			St. George, Mr., son of the late Col. St. George	£5000	Smith, Mr. John. Meath	£4000	
Hertford, Lord	£25000	Hamilton, Lord Boyne's son	£1800	Smith, Mr., Co. Cork	2000	Sims, Mr., Co. Wicklow	1500
Half, Mr. Richard	700	Hussey, Mrs., widow of the late Baron of Galtrim	500	Sutton, Lord	2000	Schuldamm, Lord	700
Herbert, Mr.	1500	Halton, Mr., Wexford	1200	Sheppard, Mr.	1000	Stone, Dr., Archdeacon of Meath and Rector of Kells	1000
Hamilton, Mr., Killybegs	800	Howard, Hon. Mr., Lord Clonmore's son	1000	Sheffield, Lord	2000	Surrey, Lord	2000
Hamilton, Mr.	900	Hamilton, Mrs. Gaurin	2400	Smith, Rev. J., at Bath	1000	T.	
Hillsborough, Lord	240000	Hamilton, Mr., her son	500	Singleton, Mr., Drogheda	4000	Taafe, Mr. John	£800
Holmes, Mr.	1500	Hamilton, the Hon. and Rev. Mr. Frederick	2000	Taafe, Mr. Thomas	1500	Thomas, Widow	600
Howard, Mr.	1000	Hamilton, Lady, widow of Sir Henry Hamilton, Derry	400	Tilson, Mr.	1600	Tisdal, Mr., Co. Meath	2000
Hamilton, Mr., Longford	800	Holmes's, Lord, heirs, Limerick	2500	Tilney, Lord	1000	Tighe, Widow of the late Mr. Richard Tighe, of Rosanna	500
Hoare, Mr. —	1000	Hamilton, Mr. Charles, Co. Antrim	700	Tyrnawley's, Lord, heirs	2000	Tighe, late Miss Fownes, and Family	8000
Hart, Sir John	500	Hamilton, Mrs., widow	800	Ticket, Mr., Glasnevin	400	Tighe, Mr. Edwd., Westmeath, and Stamp Office	1000
Hayes, Mr., married to Miss Basil	—	I.		Tilson, Rev. Mr., at Hampton Court	—	Templeton, Lord	4000
Headfort, Lord	2500	Inchiquin, Lord	£800	Thompson, Mrs., daughter of the late Mr. Thomas Carter	1000	Temple, Mr., Westmeath	2000
Hussey, Lord Beaulieu's brother	600	J.		V.			
Harrison, Mr., Cork or Limerick	1000	Irwin, Mr., Rosecommon	£1500	Valentia, Lord	£8000	Verney, Lord	£2500
Houth, Lord	5000	K.		Vane, Lord	5000	Vere, Lord	1000
Harcourt, Mr., married to Miss Nesbitt	—	Jellybert's, Mr., heirs	£800	W.			
L.			Westcot, Lord				
Jersey, Lord	2000	Jebb, Dr., Dean of Cashel and dignitary of Christ's Church	£500	Wilkinson, Mr., Westmeath	£2000	Walsingham, Mrs.	£800
Jones, Mr. Loftus, Sligo	1600	Jones, Mr. Fras. Ewd., Co. Meath	1500	Wells, Lord	5000	Weymouth, Lord, and Mr. Shirley, County Monaghan	17000
Jones, Mr., Co. Wicklow	1500	L.		Wall, Mr., Coolmanuck	1500	Warren's, Admiral, heir	3000
M.			Webb, Mr., Deane				
Ker, Mr. David	£1600	Kelly, Mr. Daniel	£1000	Ware's, Rev. Hal, heirs	1000	Whithead, Mr.	1200
Kerry, Lord	7000	Knox, two, Misses, sisters to Lord Wells	600	Wilson, Miss Bilboa, Limerick	2000	Warrington, Mr.	800
Kingston, Lord	7000	Kildare, Bishop of, and Mrs. Jackson	3500	White, Mr., son of the late Mark White	—	Walsh, Mr., Co. Kerry	2000
Kenmare, Lord	10000	Kilwan, Mr.	2500	Webb, Mr. Limerick	2000	Woodcock, Mr. do.	2000
Keatinge, Mr., Co. Kildare	2000	N.		Walcott, Mr., Minchin, County Limerick	2500	Whitney, Mr., Westmeath	1600
N.			Spent abroad by persons who have pensions on the Irish Establishment				
Landlow, Lord	£6000	Lanesborough, Lady	£500	Spent abroad yearly by those whose income, pension, or place are under £400 a-year, including the blanks in the above list and other articles, &c.	£419,352	Wolfe, Miss	500
London Corporations	8000	Dowager	£500	Additional articles, including £300,000 annually remitted from Ireland for coals (supposed to be more)	500,000	Whitwells, two, Misses	600
Leicester, Sir Peter	800	Lambert, Mr., Co. Meath	1600	Total Main Drainage, £2,223,222.			
Longfield, Mr.	7000	Lattin, Mr., Co. Kildare	1200	To the above large amount, the interest on mortgages and the interest on the tontine was not added, because it could not be ascertained, but there is every reason for supposing that it amounted to a pretty large sum. It is possible that the remittance or yearly income of some of the persons mentioned might be overrated, but there is a set-off in the fact that many more are underated, and this was shown at the period when these lists were compiled. We certainly would like to have a Parliamentary return of the number of absentees now belonging to Ireland, irrespective of sect or party, including churchmen as well as the nobility, gentry, traders, and others, and our only object in desiring these statistics is, that it would enable us, from an industrial point of view, to arrive at some clear data respecting the real progress of this country, and extent of the impediments in the way of Irish art, trade, and manufactures.			
Long, Mr.	1500	Lyons, Mr., King's Co.	800	If a trader or manufacturer, or the smallest householder neglects to keep a proper entry of his income and expenditure, he can never know in what position he stands—instead of progressing he may be sinking fastly to a state of insolvency and ruin. It is so with a nation; she may be wealth-producing, but if the largest part of that wealth is dissipated or spent outside her shores by the monied portion of her population without any fair exchange, the country may be said to have a huge millstone around its neck, dragging her down to earth and keeping her continually there.			
Loek, Mr.	1200	Lile, Rev. Dr. Erving, and estate	900	We stated in our former paper that we do not discuss this subject of national drainage or absenteeism from a political point of view, and we repeat it. Others are at liberty to draw or deduce whatever facts or fallacies they may please, but we most solemnly believe that so long as the wealth of this country is expended in the manner it has been, improvements will advance but slowly indeed.			
Lum, Sir Fras. and Lady	2000	Lewes, Dr., Dean of Ossory	700	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Lisburn, Lord	1000	Lewis, Lord	6000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Lovett, Mr. Jonathan	700	Long's, Mr., heirs, Limerick	1500	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Long, Mr. William	1200	Lambert, Mr., Mayo	1000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Lucan, Lord	5000	Leland, Colonel	1000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Louth, Lady	1800	O.		Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Lyon, Mr., Queen's Co.	800	Maxwell, Rev. Mr. Jas., his brother, Rector of Tullymore, and of same diocese	£500	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
M.			Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry				
Mountrath, Lord	£10000	Madden, Mr., Maddington, Co. Monaghan	600	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Medlicot, Mr.	8000	Malone, Mr., Shingless, Westmeath	1200	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Middleton, Lord	—	Magnin, Mr., near Philipstown	4000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Montague, General	4000	McCarthy, Count	2000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Macartney, Lord	4000	Martin, Mr. Oliver, Galway	2000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Murray, Mr., of Boughton	4000	Minch, Mr., Stephen's-green	2500	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Massarene, Lord	4000	Moore, Mr., of Barn	2000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Milton, Lord	20000	Molesworth, Mr., son of the late Byssie Molesworth	1000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Molesworth, Lord	4000	Mortgages, interest on	—	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Minchin, Mr.	2500	Morris, Sir William, Kilkenny	2500	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Miller, Sir John	2000	Manliverer, B., Esq.	1000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Moreton, Dr.	1800	Maxwell, Colonel	2000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Macartney, the estate, Co. Longford	6000	N.		Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Moreland, Mr.	800	Newman, Miss	£800	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Mornington, Lord	6000	Nagles, Mr.	2000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Mornington, Lady, and daughter	2500	Nicholson, Mrs., widow	3000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Mountmorris, Lord	3400	Newlanham, Sir Ewd.	3000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Mansfield, Lord	3000	Norfolk, Duke of	2000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Maxwell, Rev. Mr., Rector of Mount Temple, diocese of Meath	700	O.		Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
N.			Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry				
Needham, Mr.	£2000	Obins, Mr.	£1000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Nugent, Lord	6000	Oliver, Mrs., widow and daughter	1400	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Newman, Mrs.	2000	Ormsby, Mr., Jun., Sligo	1000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Napier, Mr.	1000	O'Hara, Mr. Hamilton	2000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Nugent, Mrs. Westmeath	1000	P.		Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Newhaven, Lord	3000	Paget, Lord, heir to Sir Nicholas Bailey	£3000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
O.			Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry				
Ossory, Lord	£3000	Ponsonby, Hon. Widow	400	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
O'Brien, Mr. Henry	2500	Price, Mr., Co. Down	2000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Oliver, Mr. Silver	6000	Poole, Mrs., widow of the late General Poole	500	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
O'Callaghan, Mr.	4000	Plunket, Mrs., at Bath	600	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Ormsby, Mr.	1000	Post Office	600	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
P.			Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry				
Portsmouth, Lord	£4000	Peury, Miss, Westmeath	400	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Powis, Lord	5000	R.		Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Palmerston, Lord	8000	Rice, Mr.	£1200	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Penn's, Sir Wm., heirs	1400	Rochfort, Mr., Belfield, Westmeath	800	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Ponsonby, Hon. Richd., brother to Lord Besborough	2000	Ranelagh, Lady	2000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Palmer, Mr., Mayo	12000	Rusborough, Lord	800	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Pleydel, Mr. T.	1000	S.		Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
R.			Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry				
Rowley's, Admiral, heirs	£1200	Rice, Mr.	£1200	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Ram, Mr.	800	Rochfort, Mr., Belfield, Westmeath	800	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Rathcomuck, co-heiress's estate	1200	Ranelagh, Lady	2000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Rowley, Sir Wm., heirs	3000	Rusborough, Lord	800	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
S.			Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry				
Shelburne, Lord	£16000	Sandford, Mr., Roscommon	£3000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Stanhope, Lord	1000	Servien, Mrs., and daughter	700	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Strange, Lord	3000	Sydney, Lady	800	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Stanton, Mr.	2000	Smith, Widow, W. Meath	600	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Saville, Sir George	2500	Swift, Mr., Co. Meath	1000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Shirley, Colonel	2000	Stepney, Widow	2000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing as patriotism, and <i>bonâ fide</i> patriotism, outside the region of politics. The true <i>Amor Patriæ</i> may be shown in developing the resources of one's native country wherever the means and power exist for doing so. The native nobility and gentry			
Sloan, Mr.	6000	St. George, Lady	3000	Whether an absentee-tax would be politic or just, or whether, without curtailing the liberty of the subject, we can otherwise grasp with the evil, we will not at present discuss. There is such a thing			

THE IRISH GRAND JURY BILL.

PRESENTMENTS FOR PUBLIC MONEYS.

WE notice this bill because it has an important bearing on questions affecting the presentments of the public moneys by Grand Juries in Ireland—a system which needed some amendment in the laws. The bill will provide for the appointment of a financial committee of the Grand Jury; but it would not deal with county officers. A consolidation of the law was necessary; the Government does not attempt this; but the present bill promises to look to the matter on another occasion. The Government intends to nominate a Commission on the bill, so that all parties may be satisfied that the Commissioners appointed are perfectly impartial and competent to perform their duties which, to say the least, are important in many ways. Of course the bill has met with some opposition, and modifications are suggested. The bill will most likely pass this session.

At a conference of the Munster Farmers' Club, the Cork, Kerry, Limerick, and Mallow Clubs sent delegates, and the bill of Lord Hartington came in for censure and condemnation in some particulars. The bill was declared to fall short of their expectations. Resolutions were adopted, declaring—firstly, that county process and poor-rates should be charged on all property liable to income-tax, and not solely on land and houses, as at present; secondly, that the elective principle should be applied to the grand jury system, and that any person having £25 valuation or upwards should be eligible to act on any board nominated to perform the present duties of the grand jury and presentment sessions, and that such board be composed equally of proprietors and rated occupiers; thirdly, that county cess be equally divided between landlord and tenant, that occupiers of houses under £4 valuation be exempt from taxation, as also public roads; fourthly, that several offices connected with the grand jury should be amalgamated or abolished; fifthly, that charges for malicious injuries by fire be done away with, as insurance premiums were now low, and the meeting believed that, in nine cases out of ten, the fires were not malicious.

What is wanted is a thorough amendment of the Grand Jury laws, for at present there is no real representation of the counties, and the Grand Juries are very often partial as well as imperfect, and the presentments too often partake of a bias, and are passed with a bias to particular ends, and not for the common weal.

A NEW FIRE-ESCAPE.

A NEW, or, rather, an improved, fire-escape is brought out in London, the construction of Mr. Bayley, a well-known wheel manufacturer, of Newington Causeway. It has been tested by Captain Shaw, the Superintendent of the Fire Brigade, in the presence of a number of gentlemen and visitors, and it is pronounced a great improvement, and it most likely will be generally adopted. The new machine has a net-work of copper wire, and no other description of bag, till a short length of canvas sacking joins it near the ground. The wire-work is a strong, square, open mesh, neither too rigid nor so flexible as to embarrass or encumber the motions of the firemen. When in use it is easy of management, and reaches to a greater height, by nine feet, than any other escape yet tried in the metropolis. One simple but valuable improvement is a central pull for lifting the fly-ladder, which is usually raised by two levers, one handle being on either side of the machine. Both are now united beneath, so that the strain is equalised. The length of the main ladder is 30½ feet; the fly-ladder measures 19 feet; the supplemental fly-ladder, 8 feet; and what is called the "first floor ladder," an apparatus which can be used for the purpose indicated by its name, or can be shipped on to the entire machine, so as to increase the total length, measures of itself 16 feet. Mr. Bayley's machine was

subjected to a series of tests, which proved that he had not overstated its advantages. A number of the heaviest men in the Fire Brigade were ordered to carry each other down the ladders, which had been fixed against a high building. Having done this, they proceeded to come down the shoot, some head foremost, others feet foremost. Then they stamped on the ladders, and subjected them to the roughest treatment. After the fly and the other ladders had been jointed together, they were thrown at different points, against which they fell with the steadiness of a machine. We understand that sixty machines have already been ordered of Mr. Bayley's pattern, and that a manual of printed directions has been drawn up and printed at Captain Shaw's order, for private circulation, in respect to the use and management of the new escapes. We trust that our city authorities will at once see to the matter, and have these machines introduced into Dublin, if they really fulfil the conditions required.

THE HOME AND THE MAN.

"As the home, so are the people."

What is progress? Let us reason.
Is it conquests grand and great;
Honours, such as we emblazon
With the emblems of the State?
Is it armies bravely quelling
Civil strife, that direst ban;
Or the building of a dwelling
Where to mould the future man?
What is progress, Lords and Commons,
Ye who guide the nation's will;
Can it be that man and woman's
Nature courts but human ill?
Is it schools for prayer and spelling,
For the Arab class and clan;
Or a healthy human dwelling
For the family of man?
Progress, human, is the solemn
Home foundation undefiled,
Man the grand Corinthian column,
And the ornament the child:
This is progress, onward swelling,
In proportion and in plan.
As we make the human dwelling,
So we shape the future man.
Let us build for health and morals;
Let us raise, in Heaven's name!
Homes to win us lasting laurels,
And to wipe away our shame.
Earthly triumphs these exelling
Are not in creation's span;
For improvement in the dwelling
Means improvement of the man.

—Builder.

C. C. H.

THE EMPLOYMENT OF CHILDREN
IN BRICK-MAKING.

THE subject of the employment of children of a tender age in brick yards and fields has for many years excited considerable attention, and had at last to be made the subject of prohibitory enactments within defined limits. Girls and boys from eight to twelve years in thousands were employed, and of even younger years, and the shameful immorality, ignorance, destitution, and other evils that grew up with the system were revolting in the extreme. Our contemporary the *Builder* by its advocacy led to some useful reform in the matter, and its articles certainly drew public attention to think seriously of the question with a view to a remedy. The remedy has been applied to some extent by an act. Apropos—a deputation consisting of the most part of masters and operative brick-makers of Liverpool, Birkenhead, and Blackburn, accompanied by Mr. S. R. Graves, M.P., and Mr. Rathbone, M.P., members for Liverpool, had an interview with Mr. Bruce at the Home Office last week. The object was to see whether Mr. Bruce would consent to a modification of the Factory and Workshops Act, so as to enable brickmakers to employ boys from the age of 12 years instead of 14 years. The deputation presented a petition numerously signed by master and operative builders and brickmakers. It was asked that as brickmaking was only carried on during the summer months the master might be allowed to employ boys of the age of 12 years on full time. The education of the children, it was urged, could be attended to during the winter months, when brickmaking was not carried on. Mr. Bruce, in reply to the various

points urged by the deputation, and in answer to questions put by Mr. Graves and Mr. Rathbone, said he had no power to authorise the employment of children under twelve during the long hours of labour described as "full time." A special clause had been introduced into the Act to meet healthful outdoor employments, such as brickmaking was represented to be, and the master brickmakers were really better situated than the owners of factories. Power was given to work children three days a week, and children could be worked a certain number of hours each day. If the master-brickmakers experienced difficulty in obtaining relays it was really a matter which could not be helped. The Factory Act, no doubt, interfered with labour, but on the whole it was found to work advantageously, and to the decided benefit of young persons. It was certain that the House of Commons would not grant any further relaxation of the regulations under the Act which were at present in force. In answer to a question by Mr. Rathbone, Mr. Bruce said he had no power to authorise the employment of children at full time for four instead of three days a week.

GRAPHOTYPING.

SOME particulars of an art which may yet lead to a considerable change in the mode of producing illustrated works, will not be out of place in these pages. A company has been for some time started in London, under the name of the Graphotyping Company (Limited), and they are producing a class of engravings at 75 per cent. less than the present cost of wood engravings. We have seen several of these engravings, but we cannot say that they have arrived to that perfection that they can be placed on a par with the delicate and sharp outline that characterises our best class of wood engravings. Indeed we think the art must make a much greater advance in improvement before it can compete with wood engraving. It is quite possible that after some time a greater excellence will be obtained, when more experience is had in the process and the manipulation that is necessary to effect it. We give here, however, a description of the process of the new art. The block, or plate, after being hardened by a chemical solution, is sent to the electrotyping department. Here the hardened chalk plate undergoes a second hydraulic pressure on to a slab of wax, by which a beautiful mould is obtained, which, after receiving a coating of plumbago (to make it a conductor of electricity), is placed in a bath or solution of sulphate of copper; the mould is connected with a galvanic battery, and in the course of a few hours a deposit of copper about the thickness of stout paper is obtained. These copper shells are afterwards taken to the foundry, where they undergo the process of "backing" with type metal. They are afterwards planed and mounted on wood blocks; they are then ready for the printer. In the printing-room the blocks are proved before they are sent out, and in the event of alterations being required they are passed into the engraving-room. We were next introduced to the photo-graphotype process, over which the company have secured an undeviating command, as it were, by not depending upon the state of the weather for their operations. They have provided themselves with an electric light, which is produced by a splendid magneto-electric machine, driven by a five horse power engine. The wires conducting the electricity from this machine pass through the flooring to the photographic room above, where they are fixed to an electric lamp. This room is as perfect as a photographic department. Down the centre is a short railway, on which stands a gigantic camera, which is used for taking negatives, from which moulds are produced by one of the various methods of obtaining reliefs by the use of gelatine or some similar mixture, and made sensitive to light by floating on a coating with a solution of bichromate of potash. From the mould thus obtained the blocks are

produced. This photo-graphotyping is a new process for producing blocks for letter-press or machine printing, and by which copies of maps, steel or copper-plate engravings, lithographs, etchings, wood-cuts, type, pen-and-ink drawings, can be photographed to the seventh size either larger or smaller than the original, and, as already stated, at a remarkably low cost. In addition to this, the company have introduced the process of printing from blocks in oil colours, and transferring the prints to japanned or painted surfaces.

The company publish some magazines and illustrated books, all of which are produced by the graphotyping process. If the new art succeeds, we will be only too glad to record its success; but, though we have been watching its advance for some time, we do not as yet detect any decided improvement. For a certain class of works the process will answer very well, but it has not reached that standard either to successfully compete with or supplant wood engraving. Cost, of course, is a great consideration, but cheapness is no advantage in the absence of artistic finish.

THE WORKMEN'S INTERNATIONAL EXHIBITION.

DISTRIBUTION OF PRIZES.

THE prizes obtained at the Workmen's International Exhibition, held at the Agricultural Hall, London, in 1870, only took place on the 2nd inst. The delay was principally occasioned from want of funds to pay for the coinage of the medals—the exhibition, though creditable to some extent, being financially a failure. The committee were obliged, at the close of the Exhibition, to call upon the guarantors, and a good deal of trouble was experienced before the funds needed were collected in. Our readers may remember that during the Exhibition we gave several notices in the IRISH BUILDER of the exhibitors from this country, which were mostly confined to Dublin and Belfast exhibits, the rest of Ireland having scarcely put in an appearance. Even Dublin was but poorly represented.

From a statement made by the secretary the prizes appear to reach the large number of 2,000, and though there were upwards of 5,000 exhibitors, that did not represent the number of those altogether to receive prizes, because in some instances there were from 6 to 20 persons often engaged on the manufacture of the piece of work.

A difficulty, too, has been experienced in many cases in making out the names of the *bona fide* workman or workmen engaged, and we fear that the employer, dealer, or mere seller of an article has been rewarded in some cases instead of the workmen, for whose improvement and advantage the exhibition was projected.

In relation to this country Belfast must be complimented for the honours gained in machinery, textile manufactures, and fancy work.

The Chairman, Captain Selwyn, R.N., who acted in the absence of Mr. Hodgson Pratt, who was to have presided, distributed the prizes, calling upon the representatives of foreign countries first.

Senor de Tivoli, who was first called, was presented with twenty-five gold medals, won by his Italian countrymen.

The representative of Denmark was presented with twenty-one gold and ninety silver medals.

Wurtemburgh obtained fifteen gold and four silver medals.

Austria carried off twelve gold and sixteen silver medals.

Netherlands took three gold and sixteen silver medals.

Bavaria won twenty silver medals.

Peru, Leipsic, and other places carried off also several medals; but their representatives not being present the prizes will be forwarded. Those representatives who were present returned thanks on behalf of their country-

men, and that of Netherlands very pertinently and strongly advocated the importance of technical education to workmen.

London carried off thirty-five gold and 352 silver medals. Sheffield, thirty gold and fifty-seven silver. Nottingham, twenty-four gold and eighteen silver. Bath, twenty gold and one silver. Belfast, *seventeen gold and one silver*. Exeter, fourteen gold. Birmingham, fourteen gold and thirty-two silver. Derby, fifty-four silver.

Besides the gold and silver medals there were a large number of bronze medals distributed.

We can only afford space at present for the names of the winners of the first-class prizes. The names of the manufacturers and employers, and workmen in some instances, are given conjointly, as it was found impossible to separate them; but wherever the workmen or workman could be found to stand alone his name is singly given.

INVENTIONS.—Sir Antonio Brady, John Cousins, Dr. Del Pante, Robert C. Dunham, John King, Henry Kinsey, Benjamin Mangan, William Muggleton, George Read, John Tiranoff, H. B. Young.

MACHINERY.—James Addis, *James Conlong*, John Lilly, Mellor, Moses and Sons; Thomas Stevens and Workmen—viz., Davis, Gardner, and Henry Stevens, for improved Jaquard loom; *Hugh M. Ward*, spinning frame of improved construction.

FIREARMS.—The workmen of Jeffries, Bros., jointly; William Soper, for direct-action breech-loading rifle; Thomas Wem, Adams and Tate.

SEWING MACHINES.—Cyrus Symons.

CARRIAGES.—Messrs. S. and A. Fuller, and the following workmen jointly:—James Brown, John Holton, S. Bateman, Henry Witcombe, Robert Carpenter, Philip Dart, Thomas Murley, George Coombes, H. J. Vanstone, Wm. Coombes, jun., W. Coombes, sen., R. Lang, W. Williams, H. Smith, J. Rande, Edward Francis, S. T. Mallard, W. Turner, G. Painter; Messrs. Standfield and Crosse, and the following workmen jointly:—Triggs, Flood, Manning, Tuckett, Holmes, Carr, Medland, Morris, Efford, Sparks, Andres, Tubbs, and Dobles.

VELOCIPEDS AND PERAMBULATORS.—The workmen of Messrs. Peyton and Peyton.

MARINE MODELS AND NAUTICAL APPLIANCES.—Thomas P. Fuller.

SCULPTURE, CARVINGS, AND DECORATIVE ART.—John Taylor, G. Torrini, Lot Torelli.

FURNITURE, MUSICAL INSTRUMENTS, AND SCHOOL FITTINGS.—Luigi Frullini, G. B. Gatti, Theodore Lovendahl and workmen, jointly; Weipert, Stieglitz, and Genossen, and the following workmen, jointly, viz.:—Rich, Fischer, Aug, Baum, Emil Stieglitz, Vincenz Weipert, and Joh. Trefz.

ORNAMENTAL METAL WORK.—W. J. Bastard and Richard Pew, jointly; Cesare Bertoli (employed by Giuseppe Ocarisi), for gold work; V. Christesen, Jeholada Rhodes, for silver and plated goods, and for illustrations of a novel method of decorating metal work.

GLASS AND CHINA.—Thomas Collier Barnes, Elijah Barnes, P. Ipsen, also—Wendrick (for design), and Emma, Agnes, Dagmar and Aalborg Roensholdt, jointly, for painting; Josiah Rushton, the workmen of Salviati and Co., jointly, viz.:—Giovanni Barovier, Giuseppe Barovier, and Antonio Seguso.

BUILDING APPLIANCES.—James Mocock.

FANCY WORK.—*The work-girls employed in the Irish Industrial Depository, jointly, George Smith, agent.*

ARTICLES FOR PERSONAL AND DOMESTIC USE.—The following workmen of Santini Brothers:—Clominda, Mazzini, Assuntini Novelli, Assuntini Briecoli, Paradisa Gaeci, Carlotta Cenci, Olimpia Giovanetti, Teresa Dina, Teresina Bellini, Maria Beeherelli, Enriehstti Meoni, Maria Dini, Annunziata Valdini, Colombia Bibi, Caruba Ciardi, Mustia Bini, Emilia Giovanelli, Emilia Borsello, Maria Berta, and Rosa Berzi; Anderson, Brothers, and workmen; Albert Stotz and following workmen:—Jac Wöhr, Carl Gockeler, Heiner Deeg, Friedr Alber, Gottl, Schlopp, Christ Monn, Herm Nicolai, Carl Krauss.

SUB-SECTION (CLASS 10).—GENTLEMEN'S WEARING APPAREL.—John Kirby.

BOOTS AND SHOES.—John Edward, John Griffiths (employed by C. Allen), Philip Kirby, —Slingo.

CUTLERY AND EDGE TOOLS.—George Baxter (employed by William Shirley), for spring knives; Ledger Byron (employed by William Shirley), for razors; the following workmen of Messrs. Brookes and Crookes, jointly, viz.:—Samuel Linley, Samuel Baker, and Joel Ibbotson, for table knives; George H. Mills, George Gillett, John M. Hall, and George Goth, for scissors; John Marsh, Henry Harrison,

Edwin Borwick, Jonathan Brookes, and William Billam, for dressing-case instruments; the following workmen of Messrs. Mappin and Webb, jointly; —Judge, Benjamin Moseow, William Nelson, and H. Turner, for dagger and bowie knives; William Jackson, H. Hall, P. Piekford, —Skerrett, Charles Hubbard, Charles Gascoigne, R. Smith, and Wm. Billam, for desert knives.

SCIENTIFIC INSTRUMENTS AND APPARATUS.—T. W. Bush, T. Bradshaw, Henry E. Davies, Augusto Guattari, William Peters, James Swift, *Horatio Yeates*.

CLOCKS AND WATCHES.—William Chalfont, James Thwaites.

SADDLERY AND LEATHER WORK.—The following workmen of August Klein, jointly, viz.: A. Toppich, M. Batcher, B. Slawiek, C. Genewin, J. Segensmid, W. Pokorny, P. Pollack, J. Kaspar, J. Albeseder, and E. Heiss, for leather works; J. E. G. Suhr, A. P. Suhr, and M. U. Lingvilt, for skins; Edward P. Venables.

TEXTILE.—Clotilda Armezzani; *John S. Brown*, and workmen, jointly; viz.:—Thomas Watson, *Thomas Hill*, and *Thomas Jackson*, *Thomas S. Brown*, designs for Irish embroidery; *Margaret Callwell*, *William G. Cunningham*, *Giovanni Guidici*, *W. Lowe*, *James Little* and *James Brown*, William Mellor, J. and R. Morley, for hosiery, silk, spun silk, cotton, and woollen, plain, ribbed, and fancy. Hose, &c., &c., to workmen, jointly:—Samuel Wharmby, John Wharmby, John Wagstaff, John Raynor, John Hutchinson, Henry Elliott, Samuel Newnan, S. Devonport, B. Wilkins, William Cutler, John Hickling, Peter Terry, John Derriek, Hugh Mycroft, Israel Newbold, William Cragg, Burion Joyce, F. Hallam, and T. Mitchell; Charles J. Newell and following workmen, jointly, viz.:—William Thomas and Evan Davies, Richard Williams and John Robert, J. Page (fine art); Simpson and Co., and following workmen, jointly:—Hope, Elliott, and Simpson; Thomas, James, and Annie Stevens, jointly.

FOOD AND OTHER PRODUCTS AND RAW MATERIAL.—F. Anthony; Backboffer, of Leipsig, for cigars; Johannes G. Bootz; Serafino Burchi, for artistic confectionery; Cirizano, foreman to G. Gianasso; A. Crawford and Son, Jacob Diehl, *Dunville and Co.*, Goede, Brothers, M. Magazin, foreman of spirits manufactory, Zara; Dr. Manuel Pareira; J. Picard, for French Coffee Company; A. Soeborg, Solf and Co., Henry Swaine, for rum; D. Tallerman, for Australian collection.

NATURAL HISTORY.—Anthony Alder, Edwin Houghton, special prize for birds.

BOOKBINDING, STATIONERY, TICKET WRITING, AND SPECIMENS OF PRINTING.—William Chidderton, for bookbinding; Edward Pether, W. A. Ruygrok.

MODELS AND MISCELLANEOUS ARTICLES.—Andrea Ruffini, Robert Simms.

FINE ART DEPARTMENT.—Professor Carlo Ademollo, Esther F. Fleet, Richard S. Marriott, for wood engraving.

EDUCATIONAL SECTION OF FINE ART DEPARTMENT.—Trades School for Sons of Workmen, Amsterdam, for educational results; Nottingham School of Art, for educational results.

The above are the lists of first-class prizes. We have italicised a few of the names in some of the classes merely to draw attention to some among those of the Irish exhibitors whom we have already favourably noticed when their work was on view.

The bronze recipients should not lose heart—their medals are tokens of progress, and may impel them to work more assiduously the next time. It must be conceded that Dublin and the rest of Ireland, excepting Belfast, was completely in the shade, in the late Workmen's International Exhibition.

On the eve of a National Exhibition in Ireland let the craftsmen of Ireland and her chief cities show what they can do in unison with their employers, and let their employers be content to take the merit to themselves which solely and only belongs to them, the credit of turning out of their workshops and factories good workmanship, which can only come through the hands of skilful and competent craftsmen.

In every instance let us know the name of the invention, the designer, and the workman, and let it no longer be said that "the world dishonours its workmen, stones its prophets, crucifies its saviours, and shout till the skies ring out—Long live violence and fraud."

If this counsel is kept in mind the Irish Exhibition of Arts, Industries, and Manufactures will be remembered with honour and spoken of with respect.

ART IN LONDON.

A DISTRIBUTION of prizes took place a few days ago at the Lambeth School of Art, of which the following particulars will interest: Miss Agnes Shenk was awarded the gold medal for design for lace, and also received the Prince of Wales' scholarship of £25. The silver medallists were: Miss Alice Purkess, for a head from life; Mr. Arthur Barlow, for a model from the antique; and Mr. Tom Hunt, for a life study. There were seven bronze medals, and numerous other prizes, including books, money, and several useful articles. Canon Gregory, before the presentation, which took up a good deal of time, sketched the eighteen years' history of the academy, from its modest origin, with which he was personally connected, to its present handsome, useful, and large proportions. The aim of its founders and existing managers was to render the teaching a practical adjunct to the iron and pottery industries of the district. How far they had succeeded might be gathered from the works exhibited so plentifully on all sides of the room. This was the first occasion of the pupils being able to display beautiful objects of pottery art of their own conception and workmanship—a result due in great measure to the liberality of Mr. Henry Doulton, and the zeal, taste, and ability of Mr. Sparks, the head master. The distribution of the evening was for two years, owing to the rebuilding and enlargement of the premises, and he appealed to the overflowing audience before him to contribute something towards wiping off a debt of £300 this extension had left unpaid. Mr. Tom Taylor, the eminent critic and dramatist, after the distribution, recited an address upon Art, taking for his leading theme the street decoration of the recent Thanksgiving Day. Mr. Taylor's remarks were not very complimentary on this head, for he thought that England had degenerated, much in many phases of art, study, and production. He, however, hoped for better days, and believed that such and similar institutions as that of Lambeth, would do much to restore the lost prestige of the country.

THE IRISH ABSENTEE CENSUS, 1870.

THE absentee question has received some attention at our hands in last and present issues of this journal. Elsewhere in our columns, the real Main Drainage of Ireland in the Eighteenth Century is shown, as it existed at the commencement of the Irish parliamentary era.

The following parliamentary summary of the question for the present time, will be found to possess some interest:—

Mr. P. J. Smyth moved for a return of the number of landed proprietors in each county, classed according to residence, showing the extent and value of the property held by each class; resident on or near the property; resident usually elsewhere in Ireland, and occasionally on the property; resident elsewhere in Ireland; resident usually out of Ireland, but occasionally on the property; rarely or never resident in Ireland; public or charitable institutions or public companies; total of preceding; proprietors of properties under 100 acres unclassified; grand total; and, similar return of the number of landed proprietors in each province, and classification of proprietors.

The Marquis of Hartington said that he had no objection to supply the information in the possession of the government, but it was two years old, and must be taken for what it was worth. The motion was opposed by Mr. S. Booth, Mr. W. Hunt, Lord Claud Hamilton, and Mr. Bouvier. The last-mentioned gentleman described the information asked for as of a vague character, and added that if it were ordered it might be turned to purposes which would not be very creditable. Mr. Disraeli suggested that, if there was to be a return of this expensive character, it would be as well that the house should be furnished with the results of its recent legislation. The Attorney-General for Ireland stated that the information was comprised in a single sheet of paper; but he was happy to say that the number of proprietors not resident in Ireland was greatly under the number generally supposed, and that not more than one-eleventh or one-twelfth of the land was possessed by persons who did not reside on their property. Mr.

Gladstone said the information was so brief that its production would not involve any serious expense, and the return would be of an "interesting nature." Mr. Disraeli wished to know whether a return which was two years old would answer the motion? To which Mr. Smyth replied that he would be perfectly satisfied; but the speaker ruled that it would not. Then Lord Hartington imitated his readiness to produce the information if the motion were made to apply to the year 1870. This was acceded to, and the motion so amended was agreed to.

We would prefer to see the return made out up to the present year, and we would also like to see a return for 1850, or one for a quarter of a century ago, so that a comparison could be made as to the date of increase and decrease since 1801.

OUR TIMBER SUPPLY—THE AMERICAN FORESTS.

AN American contemporary has lately very wisely directed attention to our timber supply and its probable duration. We are at present speculating upon the duration of our coal fields; but of scarcely less importance to the world of arts and manufactures is that of our timber supply. Iron and other minerals in many ways may substitute that of wood; but notwithstanding this, the drafts upon foreign forests will continue for long years to be very large. The British Islands had once large tracts of forest land; but from a variety of causes these were in process of time denuded of their stock of timber. Some of this stock of timber was cut down through centuries for purposes of fuel, more to make way for cultivated land as the population increased, and another portion for trade, domestic building and ship-building purposes.

In England during the last century and early in the present, before iron ships were constructed, the growing of timber for ship-building purposes in connection with the navy received much encouragement. Had the constructing of iron ships remained in abeyance for a century later it is possible there would have been a great advance made in arboriculture in this country as far as it related to useful timber trees. It is not yet too late to utilize hundreds of acres of our waste lands in Ireland to the growing of useful trees of rapid growth, whose timber can be used for a variety of trade and domestic purposes. The annexed article, from the *Scientific American*, will afford to the general reader some interesting as well as useful information, and as it will not be out of place in this journal, we the more readily transfer it to our columns.

What with the immense drafts made upon the store of valuable timber possessed by this country, and the terribly destructive fires that almost annually visit some portion of our wooded regions, we are fast reducing our supply, and raising the value of industrial woods in the market.

Still we seem to regard the end as something remote, and to imagine that something will turn up ere our timber shall become exhausted. We speak of the exhaustion of the English coal fields, which, at present rates of consumption, will have been reached about A.D. 2,971, as something to be dreaded, but at present rates we may fix a much nearer date for the total denudation of our valuable forests, the annual drain upon which now far exceeds the natural growth, and is constantly increasing.

We have more than once endeavoured to awaken a realization of this fact in the public mind, which, however, contents itself with present plenty, and puts away the thought of anticipated evil.

The industries employing wood as the basis of their operations, are of a magnitude scarcely second to any on this continent. We have perfected machinery for working timber, that is marvellous in the speed and delicacy of its operation, yet the time will come, unless our forests are preserved, when the majority of these industries will have passed away.

Now, there are vast tracts of country where scarcely anything except timber can be properly cultivated, and, by proper attention on the part of the general Government, the oftentimes worthless, or comparatively worthless, timber now growing upon them, might easily be replaced by that of great value in the arts. There is no more reason why we should not cultivate oak, or hickory, or pine, than corn or wheat.

The trouble has been that we have looked upon the timber supply as practically inexhaustible, and

so have overlooked a means of perpetuating and increasing this element of our national wealth.

In Europe, where the importance of a liberal supply of timber has been long felt, active measures have been taken on the part of various governments to protect existing forests and encourage the cultivation of timber. It is estimated that there yet remain in France 2,700,000 acres of State forest, the revenue of which, previous to the recent war, was 8,700,000 dols. Bavaria has about 2,000,000 acres of forest; Prussia, as it existed before the war, had upwards of 5,000,000 acres. In each of these countries, schools of forestry, under State control, are supported, in which men are trained in the scientific and economical management of the State timber lands.

The attention of England has been turned to the preservation of the sal and teak forests in India. Of the latter it was found that, within eight years from the time the forests of the native princes were thrown open to the public, teak timber, suitable for Government use, was becoming scarce in Madras and Bombay. The opening of these forests was in 1822. The sal forests are more extensive. Those belonging to the British Government cover 3,500 square miles; but it is estimated, by good authority, that a rest of at least fifty years would be requisite to make good the inroads upon the supply.

Surely our timber is as worthy the attention of the Government as our mineral wealth, and it is high time that some means like those adopted in Europe be employed to save and develop it. The origin of the fires that do so much havoc ought to be investigated; and, if possible, means of prevention adopted.

As one means of protection against fire, we suggest that artificial breaks in the continuity of forests would, if they could be made practicable, aid somewhat in preventing the progress of a conflagration, especially if the cleared spaces were brought under cultivation. In extraordinarily dry weather, a fire might probably cross three or four miles of cultivated land, but in most seasons this could hardly occur. If, in placing the public lands in market, alternate sections, of sufficient width, were first sold, the intervening ones being reserved, the tendency would be to ultimately break up the forest regions in just the way indicated.

As to those reckless persons who, careless of results, fire burning wads, throw stumps of cigars, or knock the fire out of their tobacco pipes into dry leaves, regardless of the extent of damage to which their carelessness may lead, it is probably difficult to reach them by law, but something might be done toward awakening in them a sense of moral responsibility by properly circulated printed warnings, and appeals to their humanity. Such a course would tend to render the thoughtless thoughtful, and would lessen risks.

It is to be hoped that the attention of Congress will be called to the importance of this subject at its next session; and that at least some experimental attempts will be made to lessen the enormous waste which now goes on entirely unchecked by any effort to prevent it.

ROYAL DUBLIN SOCIETY.

IN respect to the establishment of a General Museum of Science and Art in connection with the above Society we gave some particulars in our last issue. We annex the recommendations which the committee have now placed fairly before the public, and we hope they may be eventually successful, and will meet with the encouragement which such a project as they have in view deserves:—

1. That there shall be erected on the ground at the rear of the present school a building for a school of art, as indicated in the plans.

2. That upon its completion the present school of art shall be converted temporarily into a museum of ornamental art.

3. That a range of buildings, the elevation of which ought to harmonise with the present house, should be erected upon the three sides of the front courtyard, connected in the upper story with the present suite of library rooms, which are afterwards to form part of the general museum of science and art; and that upon the completion of such buildings, the contents of the present natural history museum and museum of agriculture should be removed into them.

4. That the present museum building be altered so as to suite the library of this society, and other libraries that may be placed therein.

5. That when the present library rooms shall be vacated, they may be fitted up for the purposes of a museum of ornamental art, ancient and modern, where shall be deposited all articles of such nature.

6. That when the present Art School building shall be vacated, it shall form a portion of the General Museum of Science and Art.

7. With regard to the recommendation that the Museum of Economic Botany should form part of the general museum, the committee cannot but dissent therefrom. They are of opinion that the Museum of Economic Botany should be placed at the Botanic Garden, where the industrial products derived from the vegetable kingdom could be examined in connexion with the living plants which yield them. They consider, however, that the herbarium of dried plants ought to be in immediate contiguity to the library, and should therefore form part of the Museum of Science and Art.

ROYAL HIBERNIAN ACADEMY OF ARTS.

We gave a short notice already of some works of native artists and exhibitors, and we promised to return to the subject before the close. The exhibition of this year, as a whole, we cannot say is a very good one, though there are several very good pictures, and some fair objects of fine art. Respecting our own constituency, the list of architectural subjects is very sparse. Mr. Thomas Drew, Hon. Secretary of the Royal Institute of the Architects of Ireland, sends a "Celtic Cross," a memorial to the late Countess of Durham. J. Stirling Butler, R.H.A.—"Perspective View of proposed R. C. Church, Queen's County," "Perspective View of intended new Tower, &c., to R. C. Parish Church, Baltinaglass, County Wicklow," and a "Design for Western Entrance and Tower to R. C. Church at Maryborough"—we pass over the grocery establishment design. Mr. J. J. McCarthy—"Church of the Capuchins," now being built in Church-street, Dublin. Mr. Drew has also two other sketches—one of "A Sixteenth Century Warehouse, Antwerp," and a "Sketch for a new street proposed to be run from Dame-street to Thomas-street," stretching in its course alongside Christ Church Cathedral. Of these and the works of Mr. Henry O'Neill, Mr. MacManus, the Messrs. Grey, and some others, including two or three works in the sculpture class, we will speak on another occasion. It is with a sense of deep regret that we have to speak of the indigent and sickly energy displayed by the architects of this country, who ought to have made the halls of the Royal Hibernian Academy glow with their efforts, either in honour of their profession or in honour of the founder of the Academy, where so few of their good, and so many of their worthless, efforts have been exhibited from time to time.

THE THAMES AND LIFFEY SEWERAGE SCHEMES.

THE deputation connected with the proposed sewerage scheme of the Upper Thames is still afloat, and its effect, we believe, has already resulted in making the promoters withdraw their bill before parliament to make some emendations before again bringing it forward next session. At a late meeting to oppose the measure Mr. Lusher opened a discussion upon Mr. Bazalgette's scheme for diverting the sewage from the upper waters of the river Thames. The proposed scheme would collect the sewage of districts occupied by over 300,000 persons, more than two-thirds of which sewage did not at present flow into the Thames, and it proposed to deposit it upon a tract of about 3,000 acres of land, situated just below the intake of the water companies. It would take in many towns and villages which had already diverted their sewage from the Thames, thus inflicting great hardship upon them, and the proposed works would, if carried out, dry up all the wells round about the neighbourhood. It would give the promoters powers to become farmers, with the advantage of paying for any loss there might be out of the rates; and would also give them power to make and levy a rate not exceeding one shilling in the pound, assessing the value themselves. He thought it was one of the most obnoxious bills ever introduced by any body of men; further, it was simply a private scheme for private interests. It had happily been thrown out this year; but as it was proposed

to re-introduce it next year, it behoved all to understand what sort of a scheme it was. If it were to be done at all it should be done by the Board of Works, and not by private individuals. He moved that, in the opinion of this club, the scheme for diverting the sewage proposed by Mr. Bazalgette is very objectionable and ought to be opposed. Mr. Payne seconded this. Mr. Bonnewell said that the scheme ought to be pushed forward instead of being retarded. The plan was simply to acquire a large tract of land and lead the sewage to it, in order to return to the land what was taken from it. It was intended to let it percolate through the earth, and the surplus water would come off nearly pure and be carried away by deep underground drains. Mr. Payne believed that the scheme would be another of Mr. Bazalgette's failures. Mr. Wildash said that the idea of taking the sewage from Ealing all the way to Chobham was absurd; it was not at all worth the outlay. Mr. Lusher replied, and the motion was put and carried. So far this new Bazalgette scheme is promised a failure, and not only a failure but a nuisance. If carried out according to the original plans it would indeed be a nuisance, and so will the Main Drainage of Dublin—another of Mr. Bazalgette's engineering failures and nuisances. We, however, are partly indebted to Mr. Farke Neville and the lot of incapables who sit and splutter in the City Council, whose greatest art is to tax, and whose greatest enjoyment is to spend in the most shameful manner the hard-earned money of the unfortunate ratepayers of this city.

There are so many drainage schemes afloat at the instance of the Dublin Town Council that it would be no nickname to call it the great *scheming Corporation (unlimited)*.

SANITARY MATTERS IN THE CITY AND PROVINCES.

ANY one at a distance reading the reports brought up by committees of the Corporation would imagine that our City Council performed a good deal of useful and sanitary work. "Farer gair," as the Celt says, and it the bitter disappointment of those on the spot to find that the bulk of these reports are a mere compound of tall talk about very indifferent performances.

The townships have been doing more useful and valuable work all along than the central authorities, and they have something to show for the outlay of the suburban ratepayers' money.

The most useful labour achieved by the City authorities lately is that performed by the City Analyst, in respect to food and drink adulteration, and we will do justice in this respect by saying that what has been done is most useful and commendable work. There is, however, a wide field of action for more work, for the systematic rascality of milk-dealers is supplemented by the villainous practices of unprincipled butchers and vendors of meat of every kind. Bakers, hucksters, and publicans need to be hunted up, and it is the duty of the City Analyst and his officers to be for ever on the alert, testing, tasting, and dropping in unawares on vendors of food and drink in all quarters of the city. Not only are the poor poisoned by unwholesome food and drink, but they are even robbed in the matter of weights and measures. Several years ago the Lord Mayor's men used to visit regularly several portions of the city, testing weights and measures, and impounding them. We submit the way to do this kind of work is not by a flourish of trumpets, or by a display of city insignia on the part of the officers. If it were the cry of the law court shrieking out, "Oh, yes! oh, yes!" it would hardly be a more generous warning to evil-doers than the way in which officials now go about doing their duty. Vagabonds are put on their guard, light weights and measures are hidden, and those of the proper standard are substituted. All is consequently found to be "on the square," and as the officials depart satisfied, the tricksters laugh in their sleeves that the Lord Mayor's man is outwitted! This is exactly the way the thing is managed. False weights and measures exist to an alarming extent in the city, and false beams and scales in addition, manufactured or doctored to order, with one beam longer than another, so that the leverage is not the same if the mode of weighing is changed from right to left, or left to right as the case may be. This is a "wrinkle" for the officers which, we hope, they will profit by the next time they are on their rounds.

In respect to hospital accommodation spoken of

previously, the Public Health Committee have recommended that a sum of £100 be contributed to the funds of the Cork-street Fever Hospital, to aid in providing accommodation for small-pox cases, and there is a report from the same committee as to the purchase of a Convalescent Home—both unobjectionable measures. No. 2 Committee of the Corporation recommend premises on the City Quay for the proposed Weigh House—a word about that hereafter.

We have also two reports, a brief of December, 1871, and of January this year, by the Public Health Committee, detailing their labours, which contrast strongly with the amount of the work left undone or untouched almost in the city.

Once more we can point to several streets, lanes, and courts, north and south of the Liffey, in a terrible state of filth through defective drainage, domestic and public, and to a number of houses that ought to be swept clean out of the public sight at any cost.

The sanitary authorities in Kingstown are attending pretty well to their duties.

A few days since the Commissioners of Kilmainham Township issued summonses against the authorities of Richmond Barracks and others for an infringement of the Dublin Sanitary Act for nuisances caused by drains. The defendants not long since, in this instance, adopted a memorial complaining to the Lord Lieutenant, and after an inquiry an order was issued for the abatement of the nuisances. We trust that the matter will be remedied.

In Drogheda it is proposed that a survey of the entire sewerage of the town should be effected. This work had already been advised and handed over to a committee, who managed to do nothing, like most other committees that we wot of. The Borough Engineer made an application to proceed in the superior courts against the present contractor for the cleansing of the streets. It was doubted that there was sufficient power under the Towns Improvement Act to make the contractor perform his duties. We believe there is sufficient power, and if not, there are other powers which the Town Corporation can make available for the purpose.

In respect to the audit of the accounts, Mr. Simms, the Government auditor, expressed a very decided opinion that the business in relation to the voting and payments heretofore were far from being regular.

At the Town Commissioners' meeting the state of the streets was also a matter of discussion, the sewers, and the conduct of the contractor, who has been summoned for a neglect in performing his contract for cleansing.

We will not say that, in the absence of fuller particulars, the contractor is liable to all blame. Public bodies often throw their own sheer neglect on the backs of other people, who are less guilty (if guilty at all) than themselves.

In Kells and other towns in Meath nuisances and weights and measures are being looked to, and some light penalties have been inflicted on the defaulters. The penalties should have been trebled, as many of the false weights were 4oz. light in the four stone, and others 2oz. and 1oz. short in smaller standards.

The workhouses throughout the country are not at all conducted in a proper manner; inferior articles in food and drink and bad wearing apparel are being supplied without any scrutiny.

As in Dublin so in Limerick, Drogheda, Belfast, and other places, Government auditors have made their appearance not a bit too soon. With the exception of the former city their work has been done; but the upright Corporation of Dublin have, by a series of short evasions and schemes, for a while tided off the danger, but have only brought down upon their backs the greater burden of shame.

Of the sanitary inspection of the country, as proposed in the new Bill before Parliament, we have spoken elsewhere in our columns.

CORRESPONDENCE.

TRINITY COLLEGE BUILDING CONTRACTS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—As the columns of your valuable journal are always open to the exposition of grievances to the building contractors, I take the liberty of mentioning one, hoping by the insertion of same in the IRISH BUILDER to remedy an unjust practice, viz.: There are at present and there will be many building contracts to be executed in Trinity College, Dublin, which have been given away in private, without having been advertised or publicly competed for by competent builders. Now, as T.C.D. is supported by Government grant and public money, it is fair that those funds should be given away privately for building without the public having the benefit of

it? Every public board advertises for tenders for the works to be executed. The Port and Docks Board, and even the Dublin Corporation, are bound to advertise their works. Perhaps if the regulations of T.C.D. were examined, a clause might be found binding them to do the same. Now that government situations are open for public competition which were formerly given away by private nomination and favour, it may not be amiss to expect the Board of T.C.D. to follow the now established system of *advertising for tenders*, when they can demand sureties for the proper fulfilment of the contract. As it would be invidious on the part of any contractor to subscribe his name, and as you might be reluctant to publish an anonymous letter, you might at least insert an article with the substance of this yourself.—Your obedient servant,

JUSTITIA.

[The letter of our correspondent touches a matter that should be inquired into; and he very pertinently and plainly puts his query, which we will answer by saying, that all building contract work relating to Trinity College ought to be submitted to public competition, and be fully open to all respectable contractors. No other course should be adopted, except in the trivial affair of petty jobs. We desiderate a more circumstantial account of the ways and means adopted at Trinity College before we speak more plainly our final opinion on the matter referred to by our correspondent.—ED. I. B.]

THE DRAMA.

In our volume for last year we devoted some articles to the subject of the drama, and art, literary, and dramatic criticism in connexion. Our remarks, we have reason to believe, effected some good, and led to not a little criticism on both sides of the Channel. Several journals which had previously avoided the speaking of their honest opinion on the abuses of the stage, ventured to be a little more candid in their utterances. So reform began and is slowly advancing. We must repeat again that here in Dublin as well as in London there is a large amount of unblushing falsity written in favour of actors and actresses and their commonplace performances,—written for pay, interest, or to ensure the privilege of *entré* and acquaintanceship. All our daily papers, more or less, held in keeping alive an unhealthy spirit in connexion with the stage. We are stern advocates for reform in every department of the drama, and we unhesitatingly say that the "free list" should be suspended in connexion with the press, and no free passes allowed except on the most exceptional occasions and for the most exceptional purposes.

Sir Charles Young delivered a most interesting lecture at the Society for the Encouragement of the Fine Arts, London, a few days since. We give a summary of the lecture, for which we are indebted to a London contemporary. The hon. baronet began by saying he was not a dramatic critic; that he knew but little of the arcana of the green-room, and had always paid for his place. The lecturer severely criticised what he termed the heroes of the toothpick school—the insufferable chattering dandies of the stalls—who, not being able to appreciate the drama themselves, did their best to mar the enjoyment of others. Such men would not be tolerated in the pit or gallery, and the time had arrived when they ought to be ejected from the stalls. It was to be deplored that a large proportion of our actors and actresses were persons of only average education, whose performances were spoiled by their ignorance of the habits of modern ladies and gentlemen. Our dramatists were open to the same charge. Thus, in the play *Society*, we were taught to believe that it was the custom of the English aristocracy to stroll about the London squares after dinner, some in evening costume, and some not. The decadence of the British drama was proved in nothing so much as in the passion for burlesques. In consequence of the prevalent custom of writing to order, half of the dramas of the present day would have no place a few years hence in the literature of the period. The audience were highly amused at the lecturer's comments on various theatrical advertisements, his description of the qualities required of a modern dramatic author, and his sketch of the theatrical manager whose great aim is to secure pieces which will be a "big go." As for the author, he must know the meaning of the word "situation," and at any literary cost be able to bring down the curtain well. The star system was spoken of as something to shudder at; *apropos* of which subject, the lecturer begged his audience to remember that Hamlet is a thinking soul, and not a gentleman who gives readings. The lecturer

insisted that we shall have no improvement until there is a more cultivated class of actors and managers; that there is no reason why acting should not be classed amongst the liberal professions; that the morality of the actor's life is not below that of the audience who listen to him; that we shall never raise the drama until we have got rid of the present managerial system; that in order to have—what is most desirable—a theatre where art is the first consideration, we must have a theatre independent of weekly receipts; that this consummation, so devoutly to be wished, might be obtained by a small grant from Government for a national theatre; but that such a proposition would never be entertained by any Chancellor of the Exchequer until our theatrical managers are of a higher type than the majority of the gentlemen now filling that position. In the course of his lecture Sir Charles condemned again and again the "unseemly impudence" which characterises the modern stage, and he concluded by an eloquent passage from Schlegel on the general influence of a well-ordered drama. The lecture delighted the audience, who cheered the best passages heartily. Mr. Donne, the Examiner of Plays, who was in the chair, invited a discussion, and asked Miss Emily Faithfull to open it. That lady obeyed the call, remarking that the stage is much dragged down by the general taste of the public, else we should not see such pieces as *Our American Cousin* and the burlesques running so many nights. Referring to her experience of distressed persons, she stated, with the sympathetic applause of her hearers, that there are no persons who help each other more, or maintain a larger number of needy relatives, than actors and actresses, though they themselves are in a struggling position. Captain Britten and other speakers continued the discussion. The chairman, in moving a vote of thanks to Sir Charles Young, said he had never in his life heard so clever and practical a lecture on the drama. It was very true that a great reform was required in the character of theatrical audiences. Until the stage took its place with poetry, painting and sculpture, we should have very little improvement. He was extremely pleased to hear Miss Faithfull's testimony to the charity of actors. Having known the profession pretty well for some years, he could himself testify that actors, as a class, were the most unselfish people in the world.

We trust that the example shown by Sir Charles Young will be imitated, and that literary as well as dramatic folk will mend their ways and morals.

PARLIAMENTARY PAPERS.—The following have been published:—Report of the Magæra commission; minutes of proceeding of the governors of Erasmus Smith's schools; letters relating to land on the Thames Embankment; copy of Governor Pope-Hennessy's memorandum on the union of Labuan to the Straits Settlement; reports relating to the metropolitan water supply; return of licences granted and refused under the Intoxicating Liquors Licences Suspension Act; the Deans and Canons Resignation Bill, as amended; and Reformatory and Industrial Schools Bill (amended).

TO CORRESPONDENTS.

IRISH ART.—In Mr. R. R. Brash's excellent paper in the present issue the student will find the information he requires, and we commend the whole series of "Notes" to the careful perusal of English and Continental as well as home students of architectural history. Although these papers are appearing in our journal, no false modesty will prevent us from speaking of their merit as we think. In a word, they are really comprehensive and admirable, and form a very fine groundwork for a future more elaborate history of the ecclesiastical architecture of this country. The Civil and Military parts of the subject, we think, would be in good hands if taken up and treated in detail by Mr. Brash, as his practical capacity for the work is unquestionable.

CONCRETE.—It is quite applicable for all cottage or farm dwellings, if properly handled; but amateurs must not expect in every case to succeed. With proper materials and a proper admixture the construction would be dry and durable, and, in addition, comfortable and cheap.

BRICKS.—Unfortunately there are scarcely any good bricks manufactured within a reasonable distance of this city, though brick clays are nowise sparse. With a little capital and enterprise, a speculator in brick-making might make his fortune in a few years by Dublin bricks well made and of Dublin clay, of which there are many good beds north and south of the city.

IRISH ARCHITECTS.—James Cavanagh Murphy was an Irish architect of some repute in his day in Ireland. He was an author of several works of an architectural and historical character, relating to Spain and Portugal. His "Arabian Antiquities" has many fine plates relating to the old Arabian buildings of Spain; several of them are descriptive of the Alhambra. Murphy propounded some curious theories respecting the origin of the pointed or Gothic arch, which he strangely deduced from the pyramidal form in architecture. He was born about 1760, and died in London in 1816.

FRESCO.—There existed the remains of some old fresco-work on the walls of Knockmoy Abbey several years ago. Dr. Petrie has given some particulars of the specimen in his sketches of the rise of Fine Art in Ireland, some papers of which will be found in the first volumes of the *Dublin Penny Journal*.

ANTIQUARIAN.—General Vallancy was a most laborious and industrious disciple of Irish antiquities and philology, but in noways a trustworthy authority. He, however, deserves great praise for the impulse which he gave to the study of Irish history, language, and antiquities at a time when even native authors looked with disfavour on the subject. Some of his works are still useful and valuable; others only curious and interesting as evidences of strange fallacies that once held a firm hold of the public mind in this country, and still have adherents.

EXTRACTS.—Our contemporary, the *Meath Herald*, in extracting our last *Civic Lyric*, "The Government Auditor," adapted it, with alterations, to suit the exigencies of the Drogheda constituency. It is welcome to make use of the lines, but it ought to have credited them to the IRISH BUILDER, and not to our English contemporary, who can in noways be flattered in the matter, particularly as the verses, though suitable to the altered circumstances of the case, are not at all improved by the process of distillation to which they have been subjected.

REPEATED ADJOURNMENTS.—There is a reason for the constant adjournment of the meetings of the City Council, and not an occult one. Guess it. Is it that somebody does not wish to meet somebody else? or that other people are not able to afford explanations if they were asked? Set meetings for a certain number of individuals are managed whenever there is a grave necessity.

ARCHITECTURAL CLUB.—"A Junior Member of the Institute" asks us to mention that the following have sent him letters, expressing their willingness to join the Club:—W. B. (Belfast)—H. K.—E. C. (Camden-street)—F.—L.—E. S. O'C. A preliminary meeting will shortly be summoned. Further names will be received at our office.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—JAMES EPPS & CO., Homeopathic Chemists, London. Also, makers of Epps's Cacaoine, a very thin beverage for evening use.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filled with vestas, at one penny. Any Tobacconist, Grocer, Chemist, or Chandler will supply it.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

RATES OF SUBSCRIPTION TO IRISH BUILDER.

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MESSRS. EARLEY AND POWELLS beg to announce that Messrs. John Hardman and Co., of No. 1, Upper Camden-street, have resigned the business of Artists, Sculptors, Church Painters, and Metal Workers, in their favour.

Earley and Powells have added to the above mentioned business the Painting and Staining of Windows for ecclesiastical and domestic buildings, under the management of Mr. Henry Powell, who conducted the Stained Glass Department of J. H. and Co., Birmingham for many years.

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The Irish Builder.

VOL. XIV.—No. 295.

The Work of Restoration at Christ Church Cathedral.



WE have already recorded the early progress of the work of restoration proceeding at the above cathedral. A short epitome of the advance made since our last notice will not be out of

place. Some descriptions have appeared elsewhere, which, though tolerably correct, are not to be depended upon in some special features, as they contain gratuitous statements not warranted by tradition, history, or fact. The general outline of the history of the cathedral is pretty well known to all intelligent citizens, as well as to Irish architectural students, so it would be needless to tell in other words what is already told in plain and simple language. The building or buildings—for there were many in connection with the edifice—have undergone many and strange vicissitudes, from previous to the thirteenth century until the present. Additions in different styles have been made and have disappeared, leaving but little remnant behind; yet throughout all the changes consequent on neglect, war, rapine, vandalism, and “botching,” the mediæval beauty of the cathedral had mostly disappeared, so far as the naked eye could observe it, during the present century.

In the original structure, as far as it could be examined some years ago, there appeared to be a great admixture or combination of both the Circular and the Gothic. The transepts until lately retained very probably a similar appearance to what they did originally, or at least at an early period. Some very good specimens of the zig-zag ornament. The windows in the transept and a few of the pointed arches were richly ornamented with chevron mouldings, and these were distinguishable in the lateral aisles that lead to the choir. An examination made some years ago, and witnessed by us subsequently, showed that one of the arches leading to St. Mary's Chapel had given way. This, mayhap, may or may not be traceable to the accident of 1562, when the roof of the south wall of the nave fell. The arched window above it must have also been seriously affected by the shock, for the central pillar was pressed into an oblique line. The arch at the entrance of this aisle was filled up with coarse masonry, to prevent its collapse, and a smaller arched opening left below.

The outside of the wall in John's-lane (north transept) showed a very fine Saxon arch door, by a projecting zig-zag, well cut, along with other well-chiselled mouldings. The caps and the pilasters—though much decayed when we saw them for the first time, now many years since—presented several figures of angels interlaced together. A niche was at each side of the door for a stoup. During the entire of the present century this door was built up, but its outline was plainly observable within on the wall of the church.

Throughout the seventeenth century very little was done to preserve the church from decay, except the aid that the common mason or plasterer could afford; but their aid seemed

commensurate with the taste of the custodians, one of whom was Archbishop Jones, who carried out some little repairs. His predecessors in office did but little since the days of Elizabeth, and what they attempted was utterly ruinous to the appearance, though it possibly had the effect of preserving to our time some of the hidden beauty afterwards revealed.

Dr. John Browne may be credited with covering a great portion of the walls of the church, ornaments and all, with heavy coats of plaster and repeated coats of whitewash, for which may the gods bless him!

Storms at different times, it may be mentioned, caused great injury to different portions of the edifice, and the repairs succeeding to each accident were mostly of a makeshift kind.

Some interesting evidences of the ornate and skilful character of portions of this mediæval edifice have turned up during the present restoration, and we believe we are correct in giving credit to the clerk of works engaged, for carefully docketing and taking notes of the “finds.”

We may, perhaps, be allowed to differ from some of the conclusions drawn by Mr. Street, the architect, while not disputing his professional ability.

Mr. Street thinks that the present existing and rather lengthy choir was the result of either choice or accident in its development or growth; and he comes to the conclusion that there was originally an apsidal east end and choir constructed upon lines of which the crypt supplies the key and shape. We do not believe that apsidal or semi-circular ends are at all so rare as seems to be imagined, for there are a goodly few in Great Britain. From the evidences of early work or construction which have turned up in connection with the apse wall and supposed original choir, Mr. Street has determined to rebuild the apsidal choir, and to harmonise it in its details with the two old arches discovered, as belonging to the original structure, consequently these old arches are to be retained. The arches in the side walls of the transepts and those the remains of which are said to belong to the original choir, are not exactly alike, though there may be a faint similarity between them.

The restored apse, like the aisles, will be groined work, the central apse containing five arches. From the surrounding aisle at the back the three small chapels will be seen when the work is completed.

South-east of the apse a circular turret has turned up, and it is supposed that at the north-east another must have originally existed—these are to be restored. In the side walls of choir two staircases have been found, which possibly led from the triforium to the ancient tower.

We would counsel a most careful re-examination of all the old evidences of ancient work turning up, before any hasty judgment would be formed in relation to many of the details, or supposed details, of the original work. In connection with the original choir and its style, which may form a precedent for additions in the restored work, there lies some considerable danger that conclusions as to style may be formed from untenable premises. Christ Church is a very old structure and of a very mixed character. If we are to have a 13th-century restoration, we can understand that *per se*, but it is as well to understand at the same time what constitutes a “restoration,” and whether we are right in

eliminating features that existed long before the thirteenth century. We are told that the more Mr. Street examined the evidences that were constantly turning up, of the older work of the cathedral, the more he was convinced that the work was designed by an architect from South Wales. We would like to know does a mixture of Romanesque and thirteenth-century Gothic prove the entity of the design as a Welch production and a Welch architect? Surely some one must be making gratuitous assertions not conducive to the acknowledged fame of Mr. Street.

We have too great a respect for the profession, and too great a love for the ancient architecture of our country, to let Christ Church Cathedral be filched away piecemeal from us in this manner.

We will defer the further consideration of several other matters until our next; but in the meantime we can bear evidence to the care and skill shown on the part of the respectable firm who has the contract, and the competent clerk of works, acting under the instructions of the architect.

THE BOARD OF WORKS IN IRELAND, AND ITS APPOINTMENTS.

THERE are times when it may be distasteful to speak out, and there are other periods when it may be treason to the common weal, as well as the professional interests we represent, to withhold from speaking out, however distasteful it may be personally or to others outwardly concerned. Such an occasion has now arisen, and, true to the principles that have ever guided our advocacy, we will be plain-spoken, without being offensive.

Almost every professional office or department connected with this nation that could confer a status on the officers or members belonging or tended to preserve the honour or credit of our country has been invaded, tampered with, and degraded. Centralization, for public economy's sake, is a very commendable innovation, if it leads to the general good; but if one country is to be degraded, and its public servants cashiered, that another country may be elevated, and its officials sent to fill up the places of those degraded or dismissed, it is time that the public protest should assume some larger proportions than a sickly and half-hearted remonstrance.

The mischievous intermeddling of the chiefs of the Public Works Department in England has already resulted in scandals as well as rank injustice to architects, engineers, artists, and others. It is long since the thin edge of the wedge has been introduced into the public departments of this unfortunate city, but it seems the wedge is to be driven tighter home, so that its expansive and crushing action may be made manifest to the “mere Irishry.” It has been well known in this city that for several years the staff of the Board of Works Department was insufficient for the work, and that assistance was required and demanded. This resulted in a commission of inquiry, the members of which set to their task with foregone conclusions, strengthened by the advice they received at head quarters that no increase of assistance could be allowed.

The duties of the commissioners seem to have been performed in the same manner that several special commissioners appointed or deputed to visit this country on the part of certain newspaper interests in London perform theirs—by hearing *ex parte* evidence,

calling upon certain officials inversely interested, catering hearsay stories, perusing whatever documents may fall in their way without any trouble, jumping to conclusions on the slightest grounds, and straining the slightest "waif or stray" that can give colour to their surmises into a reason for the changes they are anxious to suggest and carry out for the good will of their chiefs. This is the way the commission lately appointed performed their labours in Dublin. And what is the result? A third commissioner, at a salary of £1,000 per annum, is to be appointed to control and superintend the work hitherto performed by an experienced architect, who has for several years performed his duties with satisfaction to everyone within the circle of his acquaintance. If he on any occasion failed in any one important essential, the injustice or the grievance under which he is about to suffer might be met and borne without a word. Even if he did fail, there would be good reasons, and cogent ones, to excuse him, when we think on his position and the wide and manifold duties appertaining to his department.

This aside, it is not a question of Mr. Owen and the Government, but it is *the* question of Ireland and the professional honour and credit of her representatives, be they what they may—architects, engineers, or artists. Under the guise of superintending the duties of the Board of Works here, we are to have a young sapling, whose experience, if any, is inchoate, whose abilities are unknown, but whose relationships are patent and obvious. There was a time in Ireland when, if any attempt was made to foist an amateur upon any public board over a veteran in the service, the country would ring with a protest from one end of the isle to the other. We have quite enough of mere military martinets in the public service, and we desiderate knowledge and capacity as well as discipline. Our public servants are drilled and dragooned beyond all forbearance by commanding dictators who, having learned the glossary of terms, assume they can drive wherever they list and whoever they like.

This fresh attempt at degrading Irish architects, or Irishmen and Irish interests, proves once more the necessity that exists in this country for both civil engineers and architects being united in bonds of compact union and brotherhood. Did there exist the representative body that should exist in the interest of the profession, a tone would be given to the united remonstrance that ought to swell forth on this and similar occasions.

This is not, however, a time for measuring the strength of our volunteered support, or of bemoaning past feuds and petty jealousies, which are, perhaps, after all, inseparable from every profession. It is a time, and an opportune one, for an unanimous condemnation of a mean and unjust attempt to degrade the profession and the country in the person of the man, and as such it must be denounced and resisted by every possible and honourable effort. Did we deal in politics, we might deservedly lash the cowardly "liberal" spirit that creeps like a fungus on the surface of this country, and dries back into dastardly mouthings and nothingness in the streets of the capital.

Why should any meritorious veteran of long standing be robbed of his deserved honours and promotion? Why should his rank be reduced, or other civil servants be displaced, that the salary of a new commissioner may be amassed? Is the whole circle

of the public departments to be so attuned that it matters not in time whether a glorious incapacity exists, so that the family party reigns supreme? Our interest partakes of nothing of the personal, and our opposition is not grounded on likes or dislikes in relation to particular persons. On the broad basis of public honour, professional rectitude, and moral obligation we take our stand, and we warn the Government, through the Irish Executive, not in the tone of faction, but of sober reason, to cease their foul play in this country. It is unworthy of any administration, and if the system is pursued it is certain to beget a reaction in this country that may one day work serious trouble to our rulers, not only within the public departments, but through every avenue without traversed by Irish society. Though we prefer to see Irish offices in this country filled by natives of ability, yet we are not of that narrow, clannish class who would for mere opposition sake oppose the appointment of a foreigner. Irishmen hold appointments in England and Scotland, and many natives of the two latter countries hold official appointments here. We like international reciprocity in professional interests; but where nothing exists but the semblance, and when even the semblance is threatened with extinction, it is then indeed time to give utterance to our thoughts, honest, unqualified, and unconditional. Submission to injustice is an act of weakness which was always incompatible with the public spirit of our people. Once consent to be degraded, and you will be degraded lower and lower. Self-abasement will gradually creep in, and a nation of free-born men will dwindle into a province of pariahs and helots.

DRAMATIC DRY ROT.

THE FUNGI.

DRIVELLING Idiots of the stage degraded,
Mouthing Shakespeare, libelled, but unfaded,
Call yourselves whatever you may for fashion,
Dub yourselves great "stars" in plot and passion,
Put on the monkey leer, 'tis meet and fitting,
Your photographs are taken at one sitting.
Rank fungi of the earth, of growth unholy,
Sprung from filth, and living on it solely,
Low in intellect, in breeding and in morals,
Bedecked in dead men's clothes and stolen laurels,
In living death you strut a stage that's rotten,—
Sink out of sight at once and be forgotten.
From plays all damned can actors claim exemption,
'Tis said that "out of hell there's no redemption!"

NEMESIS.

"THE THEORY OF THE BEAUTIFUL."

THE above was the title of a lecture delivered some days since by Prof. Todhunter in the New Buildings, Trinity College. We annex a short epitome of the discourse, which was very interesting in the abstract; but we must differ from the learned professor if he intends that his theory of the beautiful is to be applied to art. Emotions are one set of things which may or may not arise in viewing objects that are beautiful in nature or art, but these emotions are no criterion that an object of beauty in art or nature gave rise to them. There is an emotion of wonder, which may either arise from viewing an object full of grandeur, awe, or vast proportions—the said object may be destitute of beauty or art. The educated and the uneducated eye forms its own idea of beauty, though the reasoning faculty may be absent or dormant. The beautiful in art is a thing of harmony and proportion, a combination of the utilitarian and the truly ornamental. It is not every mind that can understand what is termed

expression, though they may have a knowledge of colour and form. Joy may only be the sentimental outburst of an appreciative love purely emotional, and in no way regulated by a professional knowledge of the components or worth of the object that caused the emotion, which may after all be a very unartistic object indeed. We believe that there are canons of taste and laws that regulate the beautiful in art as well as in nature. Nature is beautiful as a whole subject of creation; but nature subdivided and split into an innumerable series of parts cannot be said to preserve its beauty in every one. Art is also beautiful, but only when proportional and maintaining its essential combinations, from which nature itself cannot be detracted or divorced. Art may lead us to a keener appreciation of nature, and nature may and does afford us many opportunities of profiting by her various and many-changing forms and displays. Art *per se*, however, may be beautiful, and yet give rise to no joy to many minds from their lack of professional, technical, or artistic knowledge, while to a true artist the beautiful in the composition, even though small, may be realized at once. We will let the professor speak:—

"The subject was one of the deepest questions in metaphysics. To some extent each man has his own ideas of beauty, and there is no recognised authority to which we can refer for guidance. We find, however, an approach to unanimity in all ethical judgments, and in æsthetic judgments there is a still greater approach to it. The æsthetic conscience may be awakened and convicted of sin, just as the ethical conscience is; and the more æsthetic men are, the more unanimous in their judgment will they become. It would appear that there is a certain catholicity in ideas of beauty, and that an unsophisticated mind may apprehend the beautiful when fairly confronted with it. Two categories might be made of the beautiful—first, that of form and colour; second, that of rhythm and sound. The phenomena produced in us by a beautiful object might be summed up in the one word—joy. The emotion of the beautiful has something of a sympathetic character; it is contemplative rather than active. It has, moreover, as Ruskin says, an element of worship in it, and underlying the delight an element of melancholy. We yearn to absorb things useful into our personality; we yearn to be absorbed into things beautiful. The beautiful is the revelation of the Divine purpose in creation; the ugly the revelation of the chaotic disorder of things, the disorder which tends to the decay of all loveliness, the production of lower and lower types of life, a revelation of the kingdom of darkness of Satan. The beautiful and the sublime express different ideas in the cosmical order of things; the beautiful may be regarded as the resolution of discord; the sublime as discord unresolved but suggesting its resolution. The pretty and the grotesque are derived respectively from the beautiful and the sublime."

At the conclusion of his lecture, Professor Todhunter quoted a portion from the Book of Job, and compared it with a passage in Goethe's Faust, to show the difference between the sublime and the grotesque. We think he might have found a more apposite quotation in the realms of art. Leaving metaphysics out of the question of the study of the beautiful in art, we will say that artistic and professional competence on the part of the sculptor, the painter, and the architect will enable them to pronounce on what is beautiful or not, as far at least as concerns their respective arts. If they have not sufficient intelligence and matured judgment to do this, they must belong to that class of persons called "colour-blind," or that more numerous class whose pretensions to a perception of the knowledge of the beautiful in nature or art leads them to tumble headlong from the approaches to the sublime to the depths of the ridiculous, without either rhyme or reason.

NOTES ON THE ECCLESIASTICAL
ARCHITECTURE OF IRELAND.BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A. SCOT.

(Continued from page 82.)

THE ROMANESQUE PERIOD.

Dr. Petrie has assigned by far too early a date to the introduction of sculptured decoration in Irish architecture; his ascription of the ornamental features in the churches of St. Flannan, at Killaloe; of Rahin, King's County; and of St. Saviour's, Glendalough, to the eighth and ninth centuries, cannot for a moment be sustained.

We have not the slightest evidence that either in England, Normandy, or Germany, carved decorations such as we find in the above-named examples were in use at the periods stated. On the contrary, the evidence of existing buildings in those countries, the dates of which have been established from documentary evidence, and which exhibit similar features, go to prove no earlier date than late in the tenth or early in the eleventh century. But as I have shewn that Ireland was in advance of the rest of Europe in the art of ornamental design and illumination, and in monumental sculpture, and as there was an early and constant intercourse of literati and ecclesiastics between Ireland and the continent, and particularly with Germany and Northern Italy, we may safely surmise that certain features of the Lombardic style may have been introduced into this country in the tenth century, even before the Norman style became prevalent in France. It must, however, be admitted that the Romanesque was not fully developed in our island until the eleventh and twelfth centuries, that development exhibiting many kindred features with the Norman of France and England, but having also peculiarities distinctively its own. That the earliest attempts at architectural decoration amongst us should be founded in some degree upon the art-principles already practised, is but reasonable to expect; and we have some evidence that such was the case: thus we find an example of perhaps the very earliest type in the primitive church of St. Dairbhile, County Mayo. The doorway of this edifice is built of large blocks of stone, the jambs converging, and the arched head in two thicknesses, each cut out of a single stone; on one of the jamb-stones, under the spring of the arch, we find a carved panel of interlaced ornament of intricate design.—(*Round Towers*, p. 318.)

Again, an example of the use of the same decoration is to be found in the doorway of the church on White Island, in Lough Erne. This church is of an ancient type, the existing masonry, of very superior character, being built of large blocks of squared stone, but not in regular courses, and presenting many examples of interlocking as usually met with in very old masonry in this country. The doorway is in the south side, and is 2 ft. 8½ in. wide at bottom, and 2 ft. 6 in. at springing of arch; it is semicircular-headed, the arch having plain mouldings crowned by a label consisting of a broad fillet and a line of pellets under it. Each jamb has two shafts, the capitals of which have plain abaci, the bells being ornamented on each face with a panel of interlaced work. Here, while the general design of the doorway is of foreign type, the converging jambs and the ornamentation are decidedly native. This doorway has been illustrated by the late Mr. G. V. DuNoyer, in the *Journal* of the Kilkenny Archaeological Society, vol. for 1860-61. (See engraving.)

The Church of the Monastery at Glendalough is sometimes named the Priory of St. Saviour. When I visited this interesting building, in June, 1858, I found it in a melancholy state of dilapidation, and could scarcely make out its plan; heaps of stones, masses of masonry, the debris of the fallen walls matted with noxious shrubs and rank grass, impeded my labours: I was, however, enabled to effect my intentions. I traced out the plan of the church, which had a nave 41 ft. in length and 20 ft. 4 in. in breadth,

clear of walls, which are 4 ft. thick: hence, I infer, it was originally stone-roofed. The door and windows have disappeared, as the walls in no place exceed 6 ft. in height, and in some parts are level with the ground. At the south side of the nave, at its eastern end, are the remains of a small porch projecting 5 ft. 8 in. from the wall of the nave, and being 3 ft. wide, clear of walls, which are 2 ft. thick, and about 3 ft. in height of which are standing. The chancel I found to have been 14 ft. in length and 11 ft. 8 in. in breadth, clear of walls, which are 4 ft. thick on the flanks and 3 ft. 6 in. on the gable. In all stone-roofed buildings the flank walls will usually be found thicker than the gables; the converse being the case in mediæval churches. The chancel arch is down, and the carved arch-stones are profusely scattered about. One of the jambs is perfect, with the exception of the capitals; it had three orders of shafts, the innermost being 12 in. diameter, the outermost 6½ in.; the intermediate one was a triple shaft; the bases and plinths all vary in design, and are carved. There is no trace of the east window, as the gable is levelled to the original sill, a portion of the string on which it rested remaining. There are two square recesses in the south wall and one in the north, but no evidence of a piscina. Great credit is due to Dr. Petrie for having preserved to us in his valuable work the ornamental features of this building. He states that the chancel was originally stone-roofed, the debris of which (for it had fallen inwards) was cleared out by Mr. Hayes, of Avondale, in 1770, when a stone bench was found at the east end, from wall to wall, 1 ft. 8 in. broad; and at a distance of 2 ft. in front of it, an isolated stone altar, 5 ft. in length, 2 ft. 11 in. in breadth, and 4 ft. in height,—this was subsequently destroyed.—(*Round Towers*, p. 253.) The capitals of the larger columns shew human heads, the hair being drawn out and worked into interlaced patterns (fig. 1, on plate); others are formed of semicircular panels of fretwork (fig. 2, on plate); the abacus is heavy, formed of a square and chamfer; the bases are all carved, and of varied design, and exceedingly curious for their singularity (see figs. 3, 4, on plate). A number of other stones were exhumed by Dr. Petrie from the mass of rubbish; some of them appear to belong to the chancel arch, others seem to have been the ornamental internal jamb-stones of windows, and are interesting as examples of native ornament, chaste and beautiful (see figs. 5, 6, on plate). I think it will be admitted, that the ornamental decoration of this little edifice was not indebted either to Normandy or England for its inspiration, but was derived from native sources.

TIMAHOE.

The Round Tower of Timahoe, in the Queen's County, is of exceeding interest on account of its doorway, which is a remarkable illustration of the early Romanesque in this country, as also for the evidence it affords of reparations made at various dates in the building. Having myself carefully examined this structure, I am enabled to lay before my readers some particulars not previously published. It stands within a few yards of the S.W. corner of the Protestant Episcopal Church, which is a modern building; it rises from a base of three plinths or offsets, the first having a height of 18 in. and a projection of 11 in.; the second, 9 in. by 3½ in.; the third, 7 in. by 3½ in.; the circumference above the third offset I found to be 57 ft. 8 in.; the height to the eave of conical roof, 85 ft.—the latter is imperfect, the top and a portion of the west side being gone. Standing a short distance east of the tower, and carefully examining it, I found that it shewed different classes of materials and workmanship in its construction. About 9 ft. in height from the ground is built of limestone, which is the prevailing material in the locality; from thence to a height of about 35 ft. it is constructed of a dark buff-coloured grit or freestone, not found in the immediate locality, but met with in the form of boulders

on a townland named Aghowna, about 1½ miles from Timahoe, as I was informed by Mr. Daniel Byrne, an educated and intelligent farmer resident there, and author of a history of the King's County. The workmanship of this portion is more regular than that of the base, being built of courses of varying heights, the joints of the blocks being vertical and horizontal, carefully wrought, and in some parts fitting with the greatest nicety; in this portion is the doorway. The remainder of the tower is built of limestone rubble-work, of good quality, but much inferior to the freestone work. The base evidences considerable antiquity, looks much worn and crushed, and shews many patches of repairs; several blocks of the freestone appear inserted, as if renewing older work. The doorway, to which our attention is particularly called, faces nearly east; its sill is 13 ft. 9 in. from the ground. Dr. Petrie makes it 15 ft.: it is not more than what I have stated. It has been profusely illustrated by that gentleman in his *Round Towers*, and also by Mr. Wilkinson, in his *Practical Geology and Ancient Architecture of Ireland*. It is constructed of the same freestone as the middle walling of the Tower, being built in courses of small blocks, finely jointed, none exceeding 9 in. high; each jamb has four piers supporting a corresponding number of arches; the angles of these piers are formed into slight shafts, and all have richly carved caps. The external piers, which with their arch form a projecting architrave to the door, have capitals showing human heads, with curling moustache and beard, the hair being drawn into interlaced patterns, as at St. Saviour's, Glendalough; the bases are composed of human heads and an ornament like an hour-glass. The arch on the front face is plain, being marked only by a couple of incised lines, but the soffit has an enrichment, consisting of a series of flat discs separated by two pellets. The second order of piers have capitals similar to the last, but in a finer state of preservation. They are exceedingly characteristic, and I have shown one of them from a drawing by Dr. Petrie (fig. 1, plate). The arch over this order is enriched by a chevron cut in on the angles, as in many Norman examples; there are no bases to these piers. The third pier is of small dimensions, the torus large, and having a cap showing a human head, having foliage for hair and whiskers at one side, and at the other a head of a perfectly Egyptian type (see fig. 2, plate); the arch over this order has an indented chevron under a square. The inner piers have plain caps, consisting of a square and deep chamfer, with a necking; upon the chamfer is a simple incised line ornament; the corresponding arch has a plain torus on each angle and a chevron incised on the soffit; the bases of the tori, or angle-shafts, are very curious, being of a bulbous form, such as we find in many Hindoo examples.

I have been thus particular in describing his doorway, as a characteristic example of a development of the Romanesque style, peculiarly Irish. Dr. Petrie seems disposed to assign to it an antiquity beyond what it is entitled to; he writes:—"Though I cannot in this, as in the preceding instance, adduce any historical evidence in support of the antiquity of the doorway,—for I should be afraid to venture on ascribing its erection to the time of St. Mochua, the original founder and patron saint of Timahoe, who flourished, not indeed in the fifth century, as Archdall erroneously states, but in the sixth,—yet it will, I think, be seen that it presents no architectural features differing from those in the doorway of the Round Tower of Kildare, which are not obviously derived, like the latter, from the debased Roman architecture of the Lower Empire, and which it would be hazardous in the extreme to deny may be of a very early age,—earlier, at least, than any Norman examples of the kind noticed as remaining in England."—(*Round Towers*, p. 236.) Referring to the learned doctor's argument respecting the age of the doorway of Kildare Tower, I find that, after an elaborate

rate disquisition, he assigns its age to the latter end of the eighth or the commencement of the ninth century (p. 230). To this judgment I can by no means assent. The doorway of Kildare Tower is a thing of shreds and patches; portions of a doorway belonging to some other edifice, it has been removed from its original position, and has been inserted in the tower at a later period. Any practical architect or builder can readily ascertain this. To endeavour therefore to establish the age of the doorway at Timahoe by reference to that at Kildare, is futile, more particularly as the learned doctor has not established any date for the doorway of Kildare Tower. The incised chevron may be almost of any age, but the moulded, indented chevron has not been found in any building earlier than the beginning of the eleventh century, and I cannot believe that this doorway is of an earlier date. It has been asserted that it is altogether an insertion. This may be the case, as there is not a single stone of its dressings bonding into the tower walling; the joints of the external piers are one over the other, the stones very small, and simply butting against the masonry of tower; in fact, the door-case could this moment be taken out and replaced without injury either to it or the fabric. Had this doorway been built up with the freestone work, it would most certainly have been bonded into it by such careful masons as the Irish then were; and if the upper part of the structure had been built at the same period, the builders would most certainly have given some ornamental finish to the windows, to make them accord in some measure with this elaborate doorway. But such is not the case; the window-opes are of the following forms:—At about 30 ft. from the ground is an angular-headed window, facing S.; at about 40 ft., facing W., is a breach where a window once was; at about 50 ft., facing N., a quadrangular ope of rude form and workmanship.

There were four opes in the attic storey, as usual facing N.S.E. and W.; two of them are perfect, and shew the inclined jambs, being semicircular-headed outside and angular-headed inside; those to the S. and W. are damaged on the outside, but the inside angular heads are visible. From an examination of this structure it is quite evident that a portion of the lower storey is of great age. Limestone is far more durable than freestone; to produce its present appearance it must have been many centuries old, before the latter was used in what certainly appears to be a reconstruction of the tower. We have then the limestone base of an ancient structure, the upper portion of which was worn by age, or shattered by storms or lightning; a rebuilding on that ancient base in a softer material, and a finer class of workmanship; we have then another lapse of time, the upper and more exposed portion of the tower becomes weather-worn and unsafe, is taken down or falls down, and is rebuilt in limestone as a more durable material, and the conical cap reconstructed. Now as to what periods we could assign these reparations, we have not a shadow of historical evidence; we can only draw an inference, that even the latest must be of a remote period, as we find reproduced in it the exact details of the oldest towers, the stone spire, and the peculiar form of windows, and even these features have materially suffered from age and weather wear. The story of the doorway would appear to be this, that early in the eleventh century—a period remarkable for the revival of church architecture in Ireland—a handsome church had been erected at Timahoe in proximity to the tower; that the builders of the church adapted the former as a belfry, and finding that its severe and simple outlines and details were incongruous with the new edifice, they removed the original archaic doorway and substituted the very elaborate one now before us, and which I have described. Had this doorway been constructed at the period of the rebuilding of the tower, surely the designers of such a beautiful piece

of work would have finished the window-opes in somewhat of a similar style, and not have constructed them in the rude archaic manner of the primitive age. Should it be reasoned, why did they not also alter the windows as well as the door? The answer is obvious, the latter was easily got at for the purposes of alteration, but the windows being at a great height were a far more difficult task, and being out of the direct view and minor features, were not considered so objectionable in connection with the new erection.

In my last chapter I have stated it as my opinion, that the Romanesque style was introduced into Ireland before it had been practised in England and Northern France. That opinion I had formed independently, from an examination of a great number of ancient buildings in this country, and from the study of examples of Irish Art in various publications and MSS. A similar view has been advanced by Dr. Petrie, and as he has preceded me on this subject, it may appear that I but echo his sentiments; it is however gratifying to my own mind to know, that my views were formed before I read the passage in that gentleman's work. Opinions thus independently formed, and conclusions arrived at, claims for them some consideration. I think it due to that learned antiquary to give his views in his own words:—

"In the opinions which I have thus hazarded,—so opposite to the generally, if not universally, adopted conclusions of eminent historical antiquarians, as to the civilisation of the Irish previously to the Danish irruptions, and still more, of architectural antiquaries, as to the antiquity of ornamental architecture in the British Islands,—I am sensitively aware that I am running the greatest danger of being deemed rash and visionary. But confiding as I do, in the honesty of my purpose, which is solely to enquire after truth in a spirit of candour, such anticipations present to me no terrors; and I feel confident, that those who are best qualified to judge of the difficulties of my undertaking will not censure the expression of opinions, however novel, which are offered for consideration in such a spirit, and which, even if erroneous, being based on evidences which I submit to be tested by the learned, must equally tend to the discovery of truth, as if they had been themselves incontrovertible.

"Impressed, as I am, with the conviction that the style of architecture variously denominated by antiquaries Romanesque, Tudesque, Lombardic, Saxon, Norman, and Anglo-Norman, belongs to no particular country, but derived from the corrupted architecture of Greece and Rome, was introduced wherever Christianity had penetrated,—assuming various modifications according to the taste, intelligence, and circumstances of different nations,—I think it is only natural to expect that the earliest examples of this style should be found in a country supereminently distinguished as Ireland was for its learning, and as having been the cradle of Christianity to the north-western nations of Europe, in the sixth, seventh, eighth, and ninth centuries. Neither should it, I think, be a matter of wonder that more abundant examples of this style, though on a small scale,—such as might be expected in a kingdom composed of many petty and nearly independent lordships,—should remain in Ireland, than in those more prosperous and wealthy countries, in which such humble structures would necessarily give place to edifices of greater size and grandeur.

"The supposition that the style of architecture exhibited in some of the Irish Round Towers—as shewn in the preceding instances, and in many of the churches, of which I shall presently adduce examples—was derived from the Anglo-Normans, is one in the highest degree improbable: in the general form, size, and arrangement of these Irish churches there is to be found as little agreement with the great Norman churches, as there is in our Round Towers with their square ones. An equal and a more important dissimilarity will be found in their ornamental details; and I must greatly deceive myself if those exhibited in the Irish churches will not be acknowledged as indicating an antiquity far less removed from the classical model."—(*Round Towers*, p. 237, 8.)

While I have already subscribed to the general views of this subject taken by Dr. Petrie, I have been obliged to dissent from his application of it to the particular examples he has referred to in support of it. His error consists in carrying the Hiberno-Romanesque period back to a date too early by nearly a couple of centuries, as I have shewn at the commencement of this chapter.

NOTES ON EARLY GARDENING IN IRELAND.

FIRST PART.

GARDENING has old connections and associations with both ancient civil and ecclesiastical architecture at home and abroad. To trace its rise, progress, and history, from the "hanging" or terraced gardens of Scripture history, and on through the mazes of Roman history or more western countries, is not our intention. Perfect modern gardening, in relation to horticultural or arboricultural triumphs, is of modern growth in the British Islands. Early gardening operations in the Eastern nations, or in Italy or France, seem to have been mostly confined to orchards and kitchen gardens, with a very sparse cultivation of flowers. Hot-beds are mentioned as early as the time of Pliny, and, according to him, were made on frames, turned occasionally to the different aspects of the sun throughout the different seasons; and we have it recorded that the gardeners of the Emperor Tiberius supplied in this manner cucumbers to the monarch, who, it is said, was extremely fond of them.

In the sixth century we have some mention of gardens by Venantius Fortunatus, a bishop, who also writes glowingly in celebration of the garden of the wife of Childebert, King of Paris. We have very little to show that even in the days of Charlemagne, with all his magnificence, gardening under his auspices made any great progress. There were orchards certainly, large in extent, under his rule, with kitchen-gardens and some few flowers; but the plants cultivated were either medicinal, of the salads order, of the common vegetables, and a few legume kinds. The flowers were of the most simple kinds, and the fruits were two or three species of apples, filberts, medlars, almonds, figs, walnuts, chestnuts, peaches, pears, plums, and some wild fruit. This was early in the ninth century. Some centuries, however, passed over before the gardening that signalised Charlemagne's days was approached in England or Ireland. We are indebted to Joseph Cooper Walker, an Irish antiquary in the last century, and at one time a member of the Royal Irish Academy, for some few particulars respecting the early history of gardening in Ireland; but even his notes, though interesting, are scanty, and we wonder much that some gentleman with a love for the subject has not taken up the matter since his day. Whether any of our inedited MS. collections affords us any interesting accounts of early gardening in connection with ecclesiastical institutions or the palaces of our kings, we are unable to say. It would be an instructive and interesting inquiry, as it would tend to throw some side light on the history of Irish architecture, and how far ornamental gardening added or was utilised to give a charm to the buildings in connection.

The civil contentions that were mostly rife for several centuries in this nation had, no doubt, a most retarding and repressing influence on gardening in Ireland in every shape, and nothing but what was absolutely necessary was grown. The church, the monasteries, and religious houses usually had some orchard lands and some small patches of kitchen gardens for their own purposes, and medicinal plants were cultivated, we believe, to a pretty large extent, for the professional doctor then was unlike his brother of these modern days.

Architecture in Ireland would seem to have arrived at a successful point of maturity long before the art of gardening was taken properly in hands. From inquiries made in the reigns of Henry VIII. and Queen Elizabeth, we find that attached to each religious house were gardens to the extent of about an acre for the cultivation of culinary herbs, and perhaps a small space for a vineyard. Architecture did little in connection with the appliances needed, or the embellishment. We find that there were pigeon and dove houses in connection with monastic gardens; and in connection with Grey Abbey, Co. Down, Harris, the historian, says:—

"In the garden of this abbey is a large well of sweet and limpid water, over which is raised a high vaulted arch, ornamented with heads and some other sculpture in stone, which seems to be the same piece of architecture that stood here when the abbey subsided."

We do not find that the much-boasted castles or strongholds of our chieftains were furnished with gardens or pleasure grounds. Trees and over-spreading foliage were, no doubt, abundant by the rivers which these castles overhung, and arbours or retreats, owing more to the freaks of nature than to the tracery of art.

Fynes Moryson, who was a close observer of things in general, and who travelled, though the country in the time of Elizabeth, gives us some few items of interest which we shall record as we proceed with our subject.

Speaking of the state of the nation—"For Ireland being oft troubled with rebellions, and the rebels not only idle themselves but in natural malice, destroying the labours of other men, and cutting up the very trees of fruits for the same cause, or else to burne them. . . . For these reasons the inhabitants take lesse pleasure to till their grounds, or plant trees—content to live for the day in continual fear of like mischief."

Looking back to these days of which Moryson speaks, and viewing matters dispassionately, we may be allowed to say that we do not think, in every instance, the natives (who were not all rebels) were altogether to blame. The monasteries and religious houses and their gardens were not certainly destroyed by the natives; for we have it stated about the same time by another writer that the castles of the chieftains were in the same danger of molestation, and a strong guard had to take the place of the herdsmen at the approach of night, when the cattle in their charge were driven into the bawn of the castle.

At a much earlier period in the history of this country we find that by the Brehon Laws the Brehons laid down rules that led to the protection of useful trees and gardens, and by special enactments prescribed the punishments for any breach in their observance. As these laws are very curious and interesting we will quote them:—

"What are timber trespasses? Cutting down trees and taking them away as *airigh* timber, *athar* timber, *folga* timber, and *losa* timber."

"*Airigh* timber are oak, hazel, holly, yew, Indian pine, and apple—five cows' penalty for cutting down these trees. Yearling cow-calfes for cutting the limbs, and heifers for cutting the branches.

"*Athar* wood are alder, willow, hawthorn, quick-beam, birch, elm—a cow for each tree, a heifer for the branches.

"*Folga* wood are blackthorn, elder, spindle, white hazel, aspen—these are the woods on which the laws give trespass—viz., a heifer to each.

"*Losa* wood (or fire wood), fern, furze, briar, heath, ivy, reeds, thorn bush—a fine on each."

It is noticed that the *arbutus* is not mentioned in these laws, though it is supposed to be indigenous to this country.

The list of forest trees mentioned must at one time have been most abundant in the country; but the ancient woods and forests are nearly extinct. The yew tree in modern times was not plentiful in Ireland. Mr. Walker mentions an act being ordained in 12th Edw. IV. to oblige all merchants who imported goods into this kingdom to import a certain number of bows at the same time, which can only be made properly of this timber. Notwithstanding the scarcity of this timber for some centuries, it must have been abundant in early times, as large trees, upwards of thirty inches in diameter, have often been taken out of our bogs. The elm, though mentioned in the laws above quoted, would seem to be of late introduction into Ireland, and was generally introduced by the English settlers in the 17th century, and planted to form groves or avenues.

The elm attains a large growth, grows

tolerably fast, and lives to a good round age. There have been one or two elm trees, possibly more, through the kingdom of historic fame. The "Big Tree" of Drumcondra was an elm said to be planted by Dean Swift; but we are of opinion that it existed many years upon the world before the witty Dean was born. This tree underwent many vicissitudes. The great storm of 1839 swept part of its veteran crown off, and a subsequent storm left nothing but a woe-begotten trunk, rotten within, yet thrusting out a few sprouts and a little foliage year after year. Jammed between two ancient hovels, on whose walls it exerted a lateral pressure, making an opening into the warmth of their hearts, the old tree and the hovels hung on in close embrace together, and the trunk may still exist as a memento of the past, for aught we know at this moment, for it is some years since we saw it last.

An elm tree of an immense size grew near Newbridge, Co. Kildare, in the last century. This tree, like the "Big Tree" of Drumcondra, was celebrated in song. The Rev. Samuel Shepherd, in his poem of "Leixlip," thus apostrophises the glory once of Newbridge:—

"Mark where yon elm renews his annual prime—
Newbridge, thy glory and the boast of time;
From age to age he looks majestic down—
Spreads his broad arms and covers half the town."

A poem on the "Big Tree" of Drumcondra will, we think, be found among the "Poems for the People" by the late John Fraser (J. De Jean), and we believe the poet also alludes to its supposed connection with Swift, as before alluded to.

Another historical elm tree, which may be said to have been at one time the patriarch of its class, existed in the beginning of the century at Woodlands, formerly Luthells-town. This tree was the admiration of all who witnessed it, but it was broken in twain within 10 ft. of the ground by a great storm in January, 1802. It was 14 ft. 9 in. in circumference at 4 ft. above the ground. At 15 ft. from the ground it was 4 ft. 9 in. in diameter, and at the height of 79 ft. from the ground it was 1 ft. in diameter.

Except in connection with their own wants, the clergy of the Irish Church appear to have taken very little interest in forwarding the progress of gardening operations in early times. The Brehon Code, however, might have been amended in many particulars by the primitive clergy, and there are features in the laws that would favour the supposition. In the Brehon Code we find also particular provisions in relation to the protection of Bees, and it was enacted:—

"Whoever plunders or steals bees from out a *garden* or *fort* is subject to a like penalty as if he steal them out of a habitation, for these are ordained of equal penalty by law."

"Bees in an enclosure or fort, and in a garden, are of the same account (as to property, penalty, &c.) as the wealth or substance of an habitation."

We see in these enactments evidence of the care taken to preserve the property and possessions of owners by our ancient Brehons or Justices, in giving to Cæsar what belonged to Cæsar, and punishing those who coveted their neighbour's goods. From these edicts it is reasonable to infer that bees were considered most valuable property by the early Irish.

General Vallancy, the antiquarian, was said to have in his possession "an Irish Almanac of the 14th century," in which the time for gathering grapes, and drinking mud or new wine was mentioned. In the light of this record we have reason for believing that the manufacture of wine, as well as the drinking of it, was well understood in this country. On the authority of *Monast. Hib.*, p. 234, we are told of the existence of a nursery or garden belonging to the priory of Kilmainham, Dublin, in 1338. This nursery was without the walls, and consequently needed the protection of the secular laws. In the effusions of our early bards there is not much mention of flowers or their associations; and the similes used in relation favours the

idea that gardening, or the cultivation of flowers, was not much practised, if practised at all. The beauty of nature and the wild flowers and blossoms, the streams, the trees, the meadows, sunshine and shower, storm and calm, frost and snow, mountain summit and valley's depth, the blue sky, the billows of the ocean, the sun, the moon, the stars, and the elements, the heaven above us and the earth around us—all these were painted, portrayed, and sung, betimes clothed in the wildest and quaintest imagery, and they gave sufficient scope to the fancy of the muse; but the beauty of the garden, as we know it and appreciate it in our days, was unknown to the bards.

Previous to the "Reformation" there were faint evidences of improvement in gardening in Ireland; but soon a sea of religious and other troubles set in, monasteries were tumbled down, monks sent adrift, agriculture, whatever of it existed, was almost completely stopped, and a howling wilderness reigned over the face of this unhappy land. How was it to be expected that men could turn their attention to cultivate flowers when it was a struggle for life or subsistence. Deprived of lands and habitations, food, no more than flowers, stood small chance of anything but the most limited cultivation.

Fynes Moryson, already mentioned, does not actually tell us of his meeting with gardens during his tour in Elizabeth's time, but he writes thus:—"I observed that the best sort of flowers and fruits are much rarer in Ireland than in England, which, notwithstanding, is more to be attributed to the inhabitants than to the air." It was in Elizabeth's time that cherries were first introduced into this country as a garden tree and fruit, though it is possible that wild kinds existed long anterior. Sir Walter Raleigh is credited with their introduction, and, is said, planted the trees in a garden existing at the close of the last century (and perhaps still) at Assane, in the County Waterford. The same locality is memorable for producing the first cider manufactured in Ireland. The apple used was the red streak brought from Herefordshire, in England, by a Mr. Reeves, of Toren, in the same county.

As soon as the times grew more peaceful, gardening attempts cropped up here and there in Ireland. Spaces were enclosed, fruit trees were planted, and a system of formal gardening, similar to that for some time practised previously in England, was introduced. We will give hereafter some accounts of the different and fantastic methods for a while in fashion here up to the close of the eighteenth century and subsequently, including the French, Italian, Belgic, and English methods, and the whimsical lengths that so-called ornamental gardening was carried to, but which was in reality gardening run mad. We will also show how far architecture proper has been connected with gardening, for good and ill, and who were the modern architects that harmonised one art with the other for the greater beauty and benefit of their art, and for human health and enjoyment.

DUBLINIENSIS.

SOUTH KENSINGTON MUSEUM.

On Tuesday the 19th ult., the medal and book prizes won by the students in the national and local competitions of last year were distributed. The list comprised two gold, six silver, and twelve bronze medals, and sixteen Queen's prizes of books won in the national competition. The local prizes consisted of thirty-one prizes of books and thirty-eight free studentships. Since the last distribution of prizes, eleven students have been recommended from these schools for entry to the Royal Academy. Sir Coutts Lindsay delivered the prizes to the successful students. Mr. Henry Cole, C.B., paid tribute to the qualifications of the former gentleman who acted as chairman.

Mr. Burchell made a statement, from which we learn that, beside the regular distribution

above mentioned, occasional prizes have been offered by the Science and Art Department and by manufacturers during the year, some for general competition, and some only for the South Kensington School. By the department £22 was offered in eleven prizes for fans, the competition being limited to female students, for which fifteen students of this school competed; and three sisters, the Misses Montalba, obtained the first, second, and third prizes, to the value of £10. The Worshipful Company of Plasterers offered prizes of £25 for designs for a "wall panel" and a design for the "decoration of a ceiling;" prizes of £1 10s., £1, and 10s. were offered by Messrs. Coulson for sketch designs for tablecloths; and by Messrs. Birkin, of Nottingham, for designs for a lace curtain. Of the school in which these honours were won, Mr. Burchell said that a progressive and steady success had continued to mark its career during the period represented by the prizes distributed.

The lady students, of which there were several, received their rewards first. The number of female students was 41, that of the male was 26.

Sir Coutts Lindsay addressed some words of sensible advice to the students, and spoke encouragingly of the great advance in English art; but urged on his hearers the necessity of a wide and liberal education, declaring his belief that, where a general training of the mind is missed, the more thoroughly an artist succeeds in mastering the technical difficulties of his work, the more painful becomes the poverty of his ideas. Sir Coutts intimated his intention to give three prizes of £5 each, with the hope of stimulating exertion in branches of study which he regarded as inadequately followed. Domestic architecture, with special reference to interior adornment, was one; sculpture, by actual work upon marble or stone, and not as represented by mere modelling, was another; and the thorough understanding and gracefully-disposed study of drapery on the living form, was the third.

Mr. Redgrave also addressed a few words before the conclusion of the proceedings.

THE COUNTY SURVEYOR, QUEEN'S COUNTY.

THE question of certain allowances made to the County Surveyor, Mr. Townsend, for clerk and office gave rise to considerable discussion before the Grand Jury at the Spring Assizes. Major Carden opposed the presentment for the usual allowance, and proposed that it should be reduced from £25 to £12, allowing the latter sum for the clerk, but disallowing the rent of the office. He said that there was room in the Court-house for the offices of the surveyor, and that in building the structure it was intended he should have his office there. It appears that Mr. Townsend has been the County Surveyor for upwards of twenty-seven years, and that he has been an efficient officer. His residence is in Abbeyleix, which is seven miles from Maryborough; and at the present moment, according to the surveyor's statement, there is not one vacant room in the Court-house. The surveyor asks that some indulgence should be shown towards him after his long service, and hopes that he will not be put to the expense and trouble that a removal of his office from Abbeyleix to Maryborough would entail upon him, now when his service is probably drawing to a close. The subject is dropped in the meantime, but Major Carden intends to push it on again by a resolution framed for the purpose, in favour of which he will, no doubt, obtain some support.

In consideration of the long service of Mr. Townsend, we think he ought to be granted the small indulgence he asks. His salary is not large for an efficient county surveyor; and if reform is to set in, there are other district items that ought to be subjected to the shears before the honestly-earned allowance of the County Surveyor should be curtailed. After Mr. Townsend's retirement or

death the matter, perhaps, could be adjusted to please all parties, but we are opposed to sharp practice against a public servant of good repute and long standing.

THE IRISH EXHIBITION OF ARTS, INDUSTRIES, AND MANUFACTURES.

WE had hoped by this time to have seen a more liberal response, by Irish artists, manufacturers, and others, in favour of our native Exhibition. In saying this we do not wish to be understood as detracting from the spirit evidenced on the part of several former exhibitors in our local expositions. If native manufacturers, *bonâ fide*, and not mere dealers, do not show an interest in what concerns themselves and their country, it is not to be expected that English, Scotch, French, or Belgian ones will put themselves to trouble in competing on a limited platform at a distance. Although South Kensington has many demands on its art resources in the way of a loan for local museums or branches in connection, yet we think that its influential directorate ought to have been more liberal of their loans towards the Irish Exhibition, taking into consideration its inception and the benefactions to which it owes its existence.

There will be, without doubt, a goodly display of staple manufactures exhibited of the textile class, and in furniture, carriages, saddlery, gun-making, &c. In these branches and others we are certain to have pronounced fitting commendation. We fear, however, that in some branches of our trade we will be sparsely represented, on the first onset at least. We desire to see, if possible—and it is possible—a fair show of building appliances, and sanitary appliances connected with household comfort, water supply, drainage, ventilation, and other cognate matters.

We should have a fair show in pottery and porcelain, glass and delft, glazed earthenware, and stone and imitations of stone and marble for articles of domestic use.

In marble works we have no doubt but two or three of our well-known city houses will exhibit something worth looking at, but what about the four provinces in general?

We desire to see, on the part of the mechanical and constructive skill of the craftsmen of this country, some evidence of their theoretical, technical, and practical education applied in their respective crafts. If we are to have a series of architectural drawings and designs on the part of our native architects, we want a similar exhibit of the constructive manipulation on the part of our artificers. The working carpenter, stone-mason, bricklayer, plasterer, and stone-carver, could give us "working drawings," moulds, and templates, in strong thick paper or polished veneer, with the "lines," "curves," "intersections," and the whole *modus operandi* of their "setting out" marked thereon, as explanatory directions to other artisans who may be interested. By these means the young apprentices and mechanics of our city and provinces might see at a glance how certain work was prepared in different branches. They might see the theory and understand the practice at once of the development of surfaces in stone-cutting, stair-cases, hand-railings, oblique stone courses, soffits, arches, cylinders, cones, columns, domes, and the whole application of lines, *i. e.*, practical geometry, to the preparation and production of the Five Orders, and the details belonging. This is what we desire to see in our national Exhibition. This kind of technical education we desiderate; but we fear that many will reply that we look for or expect too much.

If we do not educate the artisan, or afford

facilities for the present or future generation of them learning the true principles of their trade, and of seeing good examples before them, we cannot expect that their employers can forward good exhibits that will carry the palm or compete favourably with other countries.

What we have spoken of the building trades has its application to the entire circle of the trades, from the blacksmith to the goldsmith—from brick-making to Belleek pottery—from stone-cutting to sculpture—from wall-colouring to painting on canvas—from Limerick lace to Moire antique—from muffed to stained glass—from kitchen tiles to mosaic and tessellated pavements—from pin-making to anchor-forging, and to various other arts.

Having said so much by way of suggestion, we will now take note that we perceive among the present exhibitors in the Exhibition Palace several of our well-known houses, and we are glad to see them coming forward.

In textile fabrics, of course, we expected to see work from the looms of Fry & Co., Pim & Co., Fry & Fielding, Forrest & Sons, Sheridan Switzer, Atkinson, Richardson, of Belfast, Brown, do., Mahony, of Cork, Scott & Son, Island-bridge, &c. In porcelain we will have Messrs. Kerr & Son, of this city, Gregg & Son, Percival Jones, Callinan & Co. In jewellery, Messrs. Waterhouse, Brunker, Racine, and E. Johnson, &c. In the matter of furniture, in which we certainly need a little artistic improvement, we expect to see some good examples. Dublin, in the last century, was famous for its cabinet-making. In this line we will have exhibits from Messrs. Strahan & Co., M'Dowell, Jones, Fry & Co., Byrne, Arnott & Co., and others. In ironmongery, connected with the building art, Ireland of late years has had little of her own to exhibit. Coming forward in this line are Messrs. Hodges & Son, Maguire & Son, Edmundson & Co., Curtis, Daniel, &c. In carriages and coach-making, for which Dublin was also once celebrated, we will have Messrs. Hutton & Son, Brown, Grady, Andrews, Johnstone (Cork), Bates (Gorey), O'Neill. In saddlery, Messrs. Lennan, M'Mullen, Hinkson. In gun-making, the well-known houses of Rigby, Trulock & Son, Trulock and Harris, and others, will put in a fair appearance. In musical instruments Messrs. Cramer, Bussell, and one or two more, are already in the field.

We have not much space left to say that the preparations are much advanced, and the building will, as far as its space permits, be fairly arrayed.

Mr. Emden, of London, architect, has designed a grotto of arched rock-work surmounted by a figure of Erin leaning on her harp, with other details, which will be a feature for the many visitors. The water supply is being attended to, and a central basin will stand in front of the apse.

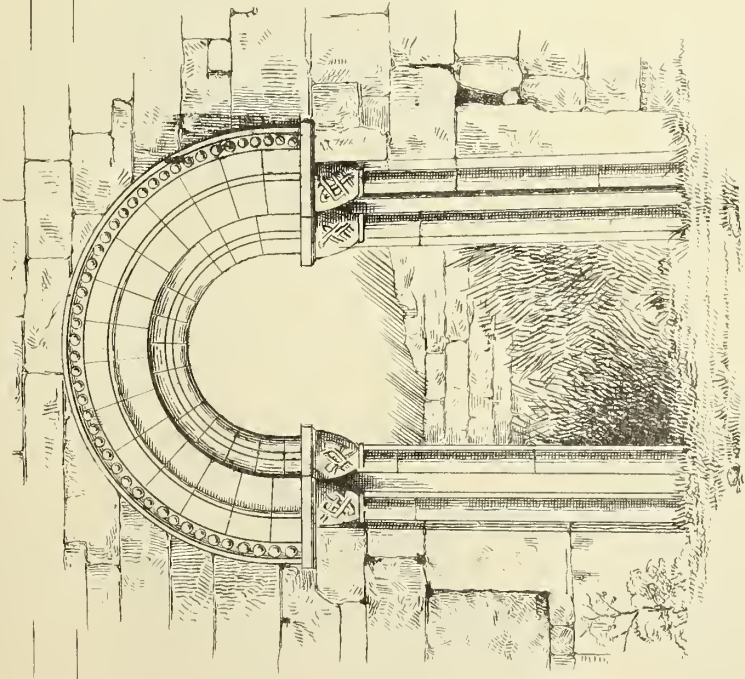
Mons. Nedel, of Paris, is entrusted with the execution of the rock work; Mr. Mitchel, sculptor, the figures; and the lighting is by Messrs. Defries & Sons, London, who performed similar work in London for the Thanksgiving Day.

Trees and plantations and parasitic plants will show on each side of the nave. The Grand Concert Hall is re-decorated from the designs of Mr. Emden, and the walls, columns, panels, and cornices, will be made to give whatever full and pleasing effect judicious colouring and gilding can bestow. To Messrs. Bell & Co., of London, is entrusted the work which relates to the Concert Hall, orchestra, organ, &c.

It is expected that the building will be open early in June, and that a musical celebration will take place on the occasion. Several leading musical stars are spoken of as being secured.

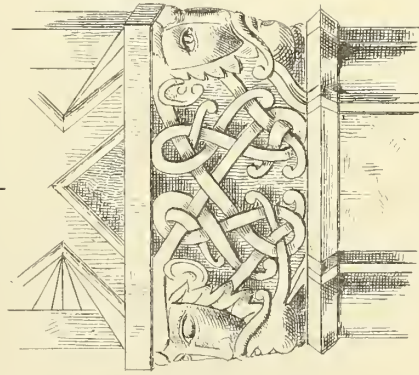
Although we might take exception to some matters and arrangements in connection with the Exhibition, we do not wish to exhibit a fault-finding spirit where the original motive was so good. We believe that the energetic manager, Mr. Lee, and the secretary, Mr. Emden, have performed their duty, although we have reason to believe that they have been badgered by a number of indiscreet indivi-

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ISLAND

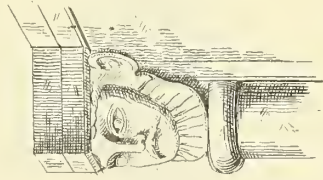


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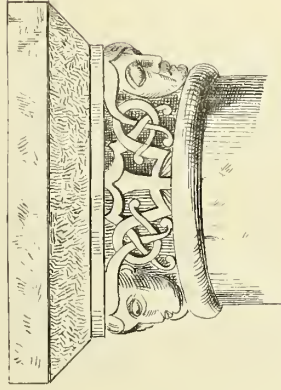


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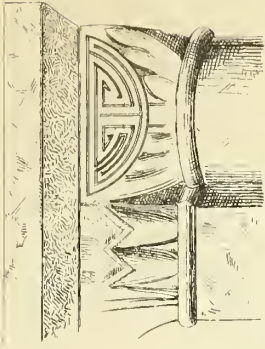


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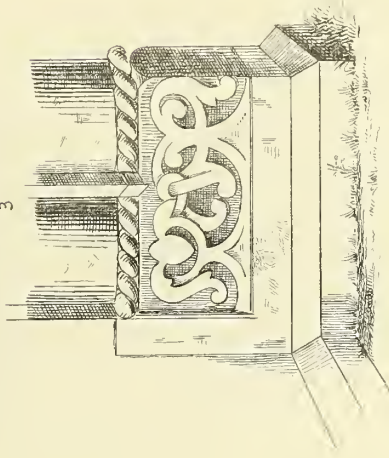
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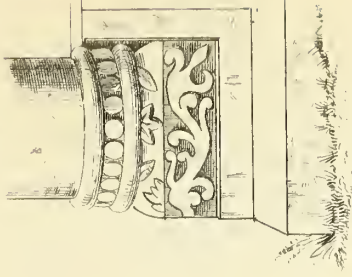
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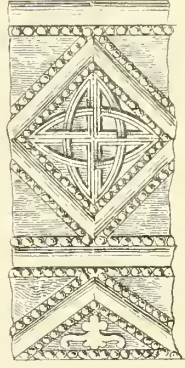
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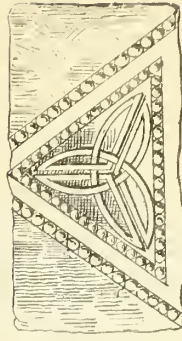
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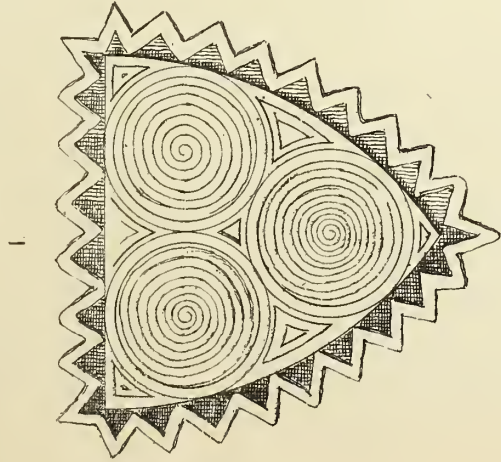
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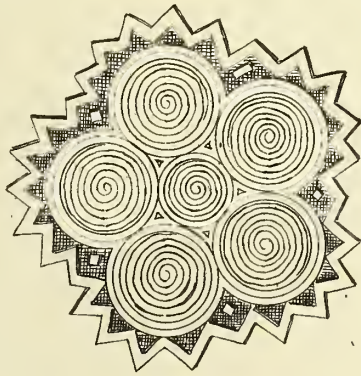
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DETAILS FROM GLENDALOUGH



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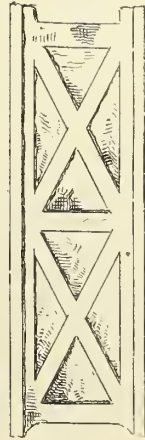
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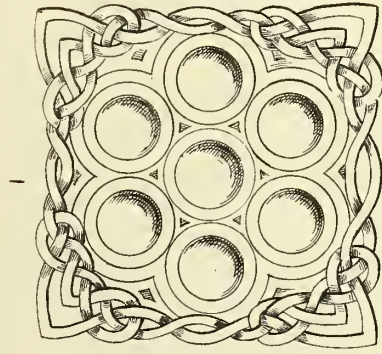
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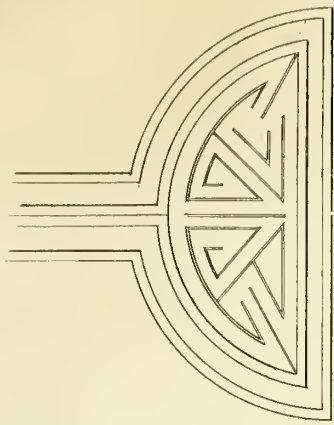
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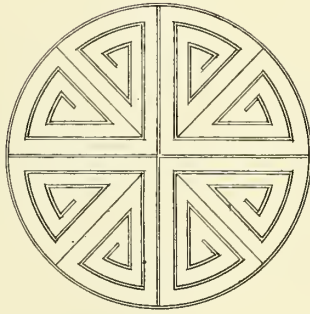
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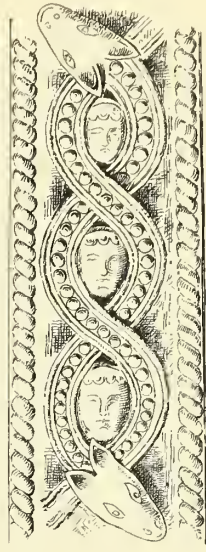
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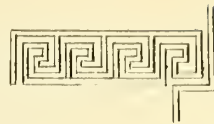
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DETAILS FROM STONE CROSSES AND GRAVE SLABS.

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

duals whose interviewing is a positive nuisance to business-men, and not the least of these "bores" are representatives of the press.

One word more. We wish the Exhibition a permanent success if it deserves it, and that can only be known fully when it is about to open. It will be our duty then to describe it fairly in the interest of all concerned.

OBITUARY.

MR. CHARLES D'OYLEY ASTLEY.

THE announcement of the death of Mr. Charles D'Oyley Astley has been received with the most profound sorrow, not only throughout the architectural profession, but widely in nearly every social circle in Dublin. The deceased gentleman was beloved by all who knew him—a refined and courteous gentleman, the most genial of companions, an able and considerate public officer, we meet with nothing but the most earnest and heartfelt expression of sorrow for his sudden and untimely decease, which took place suddenly at Blackrock on the 17th ult., in the 50th year of his age.

The deceased gentleman was remarkable for his high sensitiveness, and especially with respect to his performance of his public duties, and the maintenance of the dignity due to his honorable profession. There is but too much reason to fear that his death was to some extent superinduced by anxiety of mind with respect to the gross and flagrant job which the Government have in contemplation to perpetrate at the Board of Works. The proposed subjection of himself and others to the humiliation and insult of being placed, after years of diligent and effective service, under the subordination of an unprofessional man, an incompetent captain of Engineers, affected violently the sensibility of a high-minded professional man.

Mr. Astley had been one of the Surveyors in the Architect's Department of the Board of Works for many years. He was held in high honor in Masonic circles, having held the honorary office of Grand Superintendent of Works for a long period.

RAILWAY REFORM.

THE Midland Railway Company of England, after this date (1st April), will run third-class carriages with all trains, inclusive of the express. This is a great boon to the third-class travellers, who were hitherto obliged to either get up very early in the morning or start very late in the evening on long journeys, many of them occupying from three to thirteen hours and longer. First and second-class passengers had all the comfort and benefit with a swift transit at any time of the day, while the humbler were boxed up for hours sometimes, suffocated by overcrowding in summer or perished by open carriages in winter.

The Midland Company of England runs trains in connection with Irish sailing packets at Liverpool for Dublin, and other ports for Belfast and the north of Ireland, and this reform will be a great boon indeed to cattle salesmen, commercial travellers, merchants, buyers, mechanics, and others. Other English lines, we doubt not, will be obliged to follow the good suit, or lose in their receipts.

Here is, then, an example worthy of following by our "slow coaches," called railway directors, in Ireland. The third-class passenger traffic, be it known, is the mainstay of all English railway lines, and, we doubt not, of Irish lines also; yet the third-class passengers on our Irish lines have been treated for years as if they had been droves of cattle or pigs. There is hardly anything to choose between the second and third-class Irish railway carriages, the majority of them are so utterly filthy and dirty—miserable trucks! The first-class passengers could have ease and warmth and hot tins for their feet, and, wrapped in furs and Ulster coats, they might sleep or smoke their time away,

while going at the rate of forty miles an hour.

Reform was indeed needed, and badly. So our English friends may be congratulated on obtaining a boon which it is necessary that the Irish public should also exact from our railway directors in this country. Let them be called upon at once to show cause why they will not comply with the fair demands of the travelling community. They at present stand in their own light, for if more third-class trains were run throughout the country on the long lines, three times the number would travel, and particularly on Sundays and holidays. On the English railway lines the reform will work wonders, so to speak; traffic will increase, and the change will act similar to the change in the postal system, which quadrupled the income of the Government in a short time. The almighty penny worked wonders for the Post-office Department, so will the general adoption of third-class carriages to all trains for many of the strong English railway companies.

CIVIC LYRICS.—No. X.

THE COUNCIL.

AIR—*The Blarney.*

Oh, did you ne'er hear of the Council,
Lately warned by Government counsel,
Whose measures were light and bad to the sight,
Like all other acts of this Council?
Oh, this Council is full of deception,
And its meanness exceeds all conception;
For in raising the wind both the lame and the blind
Are knocked down and robbed by this Council.

Oh, where will we find this grand Council,
Who shells us as sparrows shell groundsel?
On Bottle-stop-hill there's a rotten wind-mill—
Round its hopper you'll find this famed Council.
Like a poison, their action is deadly
To all who may join in their medley;
If you touch of their pelf, sure the Devil himself
Will claim you henceforth like the Council!

CIVIS.

THE ROYAL IRISH ACADEMY.

A CURATOR is about to be appointed to take the place of Mr. Clibborn, who has filled the post for several years. There are a few candidates in the field—among them Mr. Haverty, known as the author of a History of Ireland, and for some years an assistant librarian at the King's Inns. Mr. Haverty possesses antiquarian knowledge, and is a contributor to Irish literature. We hope the council will select a fitting person, and one who will be active, useful, and energetic, as well as learned.

IRISH SLATE, AND SLATE QUARRIES AND COMPANIES.

WE have often wondered why it was that the slate beds or strata in various parts of this country have been so long neglected. It is upwards of a century since attention was directed to their existence, and yet down to the present time scarcely any energetic working has taken place in Ireland, with the exception of the Killaloe Slate Quarries, which of late years are worked by a company whose labours are somewhat productive, and might be a great deal more so, if fresh capital or little more skilful appliances were brought to bear on the operations.

Dr. Rutty, in his *Natural History of Dublin*, published nearly a century ago, pointed out various districts of this country where slate of different colours and descriptions were to be found; yet no one has thought it worth his while to spend a moment's thought on the matter. In the eastern counties of Ireland, as well as on the opposite coast of Wales, we have many beds of slate, some of which are indeed not of the best description, yet many of them would find a good market, and could be used for covering in the more common kind of buildings and outhouses. South-west of Rathfarnham, on into Blessington, there are districts where the stone is of the slaty strata. Near Rathcoole, at Friars-

town, and on Barneslingham Hill there is slate—at the latter place it is of a heavy description, not very fictile, but well capable of being split. At Ballymore there is a red slate. At Dalkey and on the south side of the Hill of Howth we have slate, but it is not good.

The Dublin slate, as a whole, is not good, at least so far as we know of it; but it is quite probable on careful examination there may be found many beds in different parts of this county, which could ever meet all building requirements. Slate possessing the properties in every respect, and as good, is to be found elsewhere in Ireland as well as at Killaloe. In the neighbourhood of Dunlavin, Co. Wicklow, and at Dowdingston, on the borders of Kildare and Dublin, very good slate may be found, but it is not worked.

In respect to the Killaloe Slate Quarry, we have the directors' last report before us, showing the progress and present state of the company who work these quarries. From the report we extract the following particulars, which are interesting, though we would wish that the progress was more encouraging to all concerned:—

"The directors are much pleased to be in a position again to meet the shareholders with a favourable account of the condition and prospects of their property, while they regret that the net profits shown by the workings are not so large as they had reason to anticipate in the earlier part of the half-year. The produce has been maintained, and amounts for the half-year to the sum of £4,516 6s. 2d.; but the working expenses have been considerably increased in clearing up the results of falls mentioned in former reports, in developing the quarries, more especially the portion referred to as the Great South Slant, and in other works alluded to in the engineer's report. The expenditure upon these last-mentioned works, amounting to between £200 and £300, might fairly be charged to capital, but the directors think it more advisable, in the absence of a sinking fund, to debit it to profit and loss account. An additional reason for pursuing this course is, that the directors have in contemplation the purchase of a small steamer, to supersede the sail boats now used in carrying their produce from Garrykennedy to Limerick and up the Shannon, in order to ensure punctuality in the delivery of produce, now so often retarded by the rounds of Lough Derg. This would entail an expenditure of about £1,000. The net profits shown, after deducting all expenses, amount to £680 17s. 3d., out of which the directors recommend the declaration of a dividend at the rate of 6 per cent. per annum, free of income-tax."

The chairman said the net profits were not quite so large as in former years. This was owing, in a great measure, to the expense attending the removal of a great quantity of debris that had accumulated at the quarry. The works had, at the same time, been maintained with activity. The chairman also referred to the proposed purchase of a steamer, and said he thought it would be beneficial to adopt the course suggested. The directors had also under consideration the advisability of employing road steamers at the quarries. Mr. Perry had kindly lent the company a steamer, but they had not yet had time to test its efficiency. The demand for the Killaloe slate continued—in fact, the demand was greater than the company could meet. There was some difficulty experienced respecting workmen—the Welshmen whom the company employed appeared to be of a roving disposition, but he trusted that as the directors did all in their power to make the men comfortable and contented they would prefer to be permanently employed on the company's works. The chairman, in conclusion, proposed the adoption of the report.

Mr. George Moyers, in seconding the resolution, spoke very encouragingly of the condition of the company's property, and of the quality of their slates.

It appears by the above report that the Welsh quarrymen are of a roving disposition. Why can there not be natives found to work the quarries as well as the natives of Wales? There are many Irishmen at present working in the coal and slate districts of the latter place, who would like to rove homeward, if they got the offer. Surely the working of quarry beds needs no great skill. What needs to be known is a little experience, and this can be learned in a few months. We are glad to hear that the trade in Killaloe slates is increasing, as well as in Killaloe and other Irish marbles.

A LESSON FOR CORPORATIONS.

THE BOROUGH OF DUBLIN, TO WIT.

THE decision of Sir J. Wickens, which we append below, *in re* the ratepayers of the borough of Batley, Yorkshire, and the Town Council will, we hope, have the desired effect in checking the illegal extravagances of local boards who are given to voting away public moneys for the benefit of their friends, or in honour of their acquaintances.

In the year of 1660 a cap of maintenance and a gold chain called SS. were presented to the Mayor of Dublin by Charles II., and a company of infantry granted to him as a guard. In five years afterwards the Chief Magistrate was honoured with the title of Lord Mayor; but the guard of honour was withdrawn, and £500 granted to him in lieu of a company of foot. In 1689 Mr. Michael Creagh, the then Lord Mayor, absconded with the collar SS, and as far as we are aware his whereabouts ever afterwards remained one of the "Historic Doubts" that the late Archbishop Whately never cleared up.

In 1697 Bartholomew Van Homridgh, the Lord Mayor—and evidently a Dutchman or of Dutch descent—was presented by William the Third with a donative collar of SS, in lieu of the one that was stolen. This collar has the likeness of the King attached to it, and is in the possession of the Dublin Corporation; but whether it was ever *sweated*, or left in pledge by our former or present Town Council to make up deficiencies in their exchequer, we cannot tell.

There are some things we, however, can tell since the present so-called "Reformed Corporation" began their reign, and they are these:—Several times the public funds have been voted away to do honour to other members of the Corporation on the "Mutual Admiration Society" principle, which reads, "If you vote for my friends we will vote for yours." Gratuities and testimonials in the shape of superannuations and testimonials, have been voted out of the Corporat funds, which could not be sanctioned, and which are contrary to the Municipal Acts, and expenses for deputations composed of twice as many members as the business needed, including first-class travelling and first-class hotel fare, and divers other items besides. Moneys for these things have been often and often voted away, and no account of them has been brought before general meetings until months after the affair had passed out of the public mind.

We have to pay compliment and homage to the public spirit of the townsmen and ratepayers of the borough of Batley for the noble stand they made against borough extortion, which aimed at expending upwards of £200 in purchasing and paying for a gold chain and badge for the Mayor of Batley, who ought to hide his head in shame for agreeing to be honoured at the ratepayers' expense.

The effrontery of the Corporation and the Mayor even went further, for they contested the action at law, and have been ingloriously defeated.

Tuft-hunters, shoneens, and jobbers in the Dublin Town Council, wake up and read the following:—

VICE-CHANCELLOR'S COURT—MARCH 18 & 20.
(Before Sir J. Wickens.)

The Attorney-General v. the Corporation of Batley.—This was a motion for an injunction to restrain the defendants from purchasing, and paying for, a gold chain and badge for the Mayor of Batley, out of the public rates of that borough. The corporation was constituted under the Municipal Corporations Act, 5th and 6th Will. IV., c. 76. The chain in question was duly voted for at a meeting of the Town Council—was to cost £200, to be 48in. long, 30oz. in weight, and of 18-carat gold in quality. It was to have three emblems on it—centre a bale of wool or shoddy, on the right a sheaf of wheat, and on the left a fleece. The names of the past and present mayors, with their years of office, were to be engraved thereon, and the names of future mayors were to follow as they served the office. The plaintiffs were two of the ratepayers of the borough, and they objected to the proposed purchase as not being within the scope of the 92nd section of the Municipal

Corporations Act, and as being one in which the corporation, who were mere trustees of the rates (their only property), and already heavily indebted for so young a body, could not properly indulge. In fact, the proposed expenditure was purely wanton, and quite unnecessary to the office and dignity of a mayor.

Mr. Greene, Q.C., and Mr. W. Barber supported the motion.

Mr. Karslake, Q.C., and Mr. Ince for the corporation, insisted that the expenditure was perfectly legal; but that if not, the question ought to be tried on a writ of certiorari at law, and not by this Court.

The Vice-Chancellor, without calling for a reply, said the borough fund was a trust fund, held by the corporation upon a public trust, and which was not a charitable one. The legislature had provided that in certain cases of its abuse there should be a special remedy by a writ of certiorari. But the question now before the Court was whether in this particular case it ought or ought not to grant an injunction. It was said that the sum in dispute—£200—was so small as to be beneath the attention of the Court; but it would be a matter of great regret if that were so. That sum would have to be paid by several small payments contributed by a number of persons of various positions in society, and it was the duty of the Court to see that money so contributed was not wantonly spent or wasted. But it was said that the Court of Queen's Bench was the proper tribunal, and could more speedily and more effectually deal with this matter. This Court was, however, quite as competent to deal with the matter as a court of law; and if so, he should certainly not send the case to be tried over again before another court. Then came the question whether the proposed expenditure upon the chain and badge was within the scope of the Municipal Corporations Act, giving to that statute the most liberal and reasonable construction possible. He thought not. Indeed, this particular expenditure might be "reasonably" called childish and foolish. Forms and ceremonies had their uses, and were of more or less influence upon the minds of different people. Some might, perhaps, think more of a mayor if he always went out in a gilt coach with six horses; but no reasonable person would pay him the least more respect because he wore a gold chain which he himself did not buy, and which was not, therefore, a proof even of his own solvency: It was difficult to regard this case as a serious one; but on the whole the injunction must be granted.

So much for "shoddy" Lord Mayors and "woolly-headed" corporators!

A new reform will soon be inaugurated in voting in members to corporations and vestries. The property qualification will be abrogated, and working men will be eligible to be elected in as members.

At present the middle-class section of huxters, insolvent grocers, and shoddy merchants vote one another in, helped occasionally by an epileptic howl from the moral (?) press gang; and so the ratepayers are swindled without any available protest to deter the rascals, who are void of all personal shame, and almost below honest men's contempt.

SHORT NOTES.

In the House of Commons, in reply to a question of the member for Westmeath, respecting certain transcripts of the Brehon Laws, made by the late John O'Donovan and Eugene O'Curry, the intention of the Government was asked whether it would carry out the original purpose, and direct copies of the translations of the laws to be placed in the public libraries throughout the kingdom, like those of the British Museum and the Royal Irish Academy, where they would be accessible to scholars. The Marquis of Hartington said that there were about twenty copies made, and that with the exception of seven copies made for the purpose of the Commission on Ancient Irish Laws, and a copy to Trinity College, the remainder were still in the hands of the Commission. No application, it would appear, was made on the part of any other public library. The Bishop of Limerick had written, and the Secretary of the Irish Law Commission to ascertain whether it was intended to carry out the original design. His lordship stated that the only translation made by the scholars above-named was in the custody of the Commission.

One of the projects suggested by the late Duke of Wellington, and begun in 1845—namely, the erection of a harbour at Alderney,—has resulted in a complete and shameful failure, after dragging its slow length along for more than a quarter of a century. The expenditure has been a million and a quarter. This bungling rests on the heads of successive lords of the Admiralty. The Government have agreed to abandon all future works, as it would take £250,000, or more than another quarter of a million, to complete what, after all, would be a useless harbour. Nice Admiralty management and incapacity this! What an outcry would be raised if the money had been granted to construct a harbour in Ireland, ending in a like disastrous failure.

A bit of improvement is taking place in Dungarvan. The old town pump, which was erected upwards of forty years ago by the Duke of Devonshire, is removed, and an ornamental pump, with a surmounting gas-lamp on the top replaces it. A circular limestone base is also added, provided under the direction of the Borough Surveyor, and a local contractor. Other improvements are suggested in relation to the square and butter market, and the Commissioners are about to apply for a loan to the extent of £800 for completing the market-house and town hall. A suitable site has yet to be selected.

The Government audit at Drogheda has proved unmistakably that the affairs of the Corporation have not been managed properly. The scandal is slight, compared with what exists elsewhere in Ireland, and particularly in the capital.

We would caution our citizens to be very particular as to what cabs they ride in at present. Whether proceeding from home or to home, it is not unlikely it may be "The Ride to Death" with many of them. The best way to insure safety, or divide the peril, would be to give "a lift" to any of the police off duty, or officers of health on duty. This obliging offer might have the effect of sharpening their wits, and distending their powers of observation for their own and the public safety.

THE ARTIZANS', LABOURERS', AND GENERAL DWELLINGS COMPANY.

From the report of this company, read at their last annual soiree, under the presidency of Lord Shaftesbury, we find it stated that there is an increase of £12,580 of capital during the year, the amount now being £18,580, with a dividend of 6 per cent., payable in share capital, and 5 per cent. on deposits, leaving a balance of £284 to be carried forward. A freehold estate has been acquired at Liverpool, on which the company propose to carry on their beneficial operations of replacing the wretched dens, in which the working classes are now undergoing rapid physical deterioration, by cheerful, comfortable dwellings, in which every sound sanitary condition is observed. Negotiations with the same object in view are in progress at Bradford and other large towns.

Archbishop Manning, who attended the meeting, made some very judicious and pertinent remarks about the dwellings of the poor in London. He contrasted the advantages of the country cottages, amongst which he had passed the first twenty-one years of his life, with the dens of London, not fit for human habitation, and yet so overcrowded that five or six families were living in places where only one, or at most two, should reside. He pointed out the importance of the lower classes having dwellings in which could be carried out the order, obedience, and authority which Nature intended to be the mark of family life. He cordially concurred in the rule of the company not to allow a public-house or a beer-shop to be built on their estates, as he

should always strive to diminish the number of such places, and he earnestly desired that power should be given to the ratepayers to clear their neighbourhood of such nuisances and pestilence. He was gratified to know that in this company the wealth of the rich was being made to minister to the happiness of the working men; for if there was one thing which alarmed him it was the gaping chasms between class and class, and such co-operation as this tended to bridge them.

Lord Shaftesbury expressed satisfaction at the report of the company. Instancing a cognate society which had been founded thirty years ago, his lordship said it was intended only as a model to carry out certain experiments, with the object of seeing whether there were within the people themselves those strings of energy and life which could be turned to healthy and happy account; to see whether the people could be benefited morally and physically. Having dwelt with much force on the sanitary benefits of superseding the present vile dens of working men by decent habitations, the noble lord cordially approved the rule of the company which removed the temptation of public-houses from the neighbourhood of the dwellings, and expressed the satisfaction he should feel at seeing the same policy carried out by the State or by the passing of the Permissive Bill. He hoped many of the young men of the present day would live to see England regenerated by the diffusion of such societies, and that before many years were over every Englishman might have a sound body, a sound mind, and a sound heart, in a sound house.

A project similar to this could be inaugurated in this country, if enterprise and single-mindedness were the ruling characteristics. Unfortunately, speculators float projects with a view of helping the poor, and end by helping themselves. The infant is robbed in the cradle, the grown person is robbed, and the bed-ridden are robbed by societies established to ensure human life, and others intended to afford Christian burial. The poor have to contend with ghouls and vampires from the cradle to the grave in these Christian islands.

CORRESPONDENCE.

A HINT FOR BUILDERS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—We used to take some pride to ourselves that the hybrid article, builder-and-architect, was unknown among us in Dublin, and we congratulated ourselves it was, in the march of enlightenment, becoming extinct in the remotest provinces. We knew that the builder who “supplied plans” was held in some contempt; we were certain that the system was a mischievous and inconvenient one to all parties, and in my innocence I used to think that decent builders held such a practice to be not respectable.

However that may be, I fear it must be recognised that the system is among us again—in fact to such an extent that I run not the slightest risk of being personal in any remarks I may make. No builder that I know of has trodden upon my personal corns, and I but draw attention to the subject from motives of purest philanthropy—as an object of Social Science, in fact—for, Mr. Editor, I love all men, and dear, ingenious, innocent builders, perhaps, most of all.

I am not one of those people who are very wise, and who invent and propound original opinions, but I hear a great deal of what others say, and I listen to what the biggest and wisest men I meet have to say; and so in any remarks I may have the honour to address to you, you may rely that you have well-sifted and winnowed wisdom; and when I touch on the region of facts, you will have none of startling novelty, but only those which are talked about—very much talked about, indeed—in architectural circles.

I am not going into facts, however, now,

for, as I have said, the practice of builders “supplying plans” appears, from what I happen to hear, to be of such extent that there is no necessity for quoting individual cases in point—that might be personal and disagreeable.

As to matters of opinion—with a source of information like that of the now celebrated essayist of *Zozimus*, I may mention that “a man once told me”—in fact, several and a great many men who discuss these cases have told me—that builders who can talk a great deal about etiquette in interfering with “another man’s job,” but nevertheless don’t stick to their own proper jobs, and will descend to insinuate themselves between an architect and his employer of old standing, will not care much for what people think of them; but, say my gossips, a reputation for knowing his own proper business may be of some value to a builder even in the eyes of architects; and it is not until one day a builder commits his wisdom to paper in the shape of plans, and these are handed about, that many a heretofore plausible and “eminent” builder displays himself as what an arrant blockhead he is even in his own business. *Omne ignotum pro magnifico* is a good maxim for such gentlemen. Even to “keep an architect in our concern” will not much mend the matter. We all know what species of article the “kept” architect is likely to be. To suborn a young architect of some ability to “supply” the builder who supplies the plans, is perhaps better. It is more expensive, however, if the young man is much good. His charges reduce the profits; he does not like the job; perhaps some of his ambitious construction comes to grief, and causes heavy grief to the builder who “supplies” and is responsible. In any and every case the circumstance is widely known and talked of; the true source of the “supply” of the plans is well known, no matter in what mystery it is shrouded, and, on the whole, the pretentious builder who “supplies” plans does not appear to occupy a very respectable or enviable position in the eyes of those whose good opinion he sets some value on, and which he deludes himself he will still continue to hold. “A man once told me” it wouldn’t pay in the long run. I am not a person of formed opinions, but I think so too.—Yours, &c., VERBUM SAP.

THE MEMORIAL OF GEORGE GROTE, HISTORIAN.

THE marble bust of George Grote, whose fame principally rests on his great History of Greece, was unveiled last Monday at Westminster Abbey. The sculptor is Mr. Charles Bacon. The inscription on the memorial is simple, and runs as follows:—“George Grote, Historian of Greece, born 17th November, 1794, died 18th June, 1871.” Mr. Bacon has executed a duplicate work for the London University, the donor of the second memorial being Lord Belper. To those who are acquainted with the inside of Westminster Abbey, we may state that the memorial is near the junction of the transept with the nave, next to the monument of Camden.

The Poets’ Corner will soon be so overcrowded with memorials of great men that if great discrimination is not observed as to the future merits of public men no room will be had in the historic “Corner” for love or money.

It is said that the friends of the deceased historian are quite satisfied with the success of the sculptor in rendering the features, and thus perpetuating a recognisable likeness of the man.

ROYAL HIBERNIAN ACADEMY.

THE annual distribution of prizes took place at the Academy House on Saturday, the 16th ult. The President, Mr. Thomas Jones, M.R.I.A., occupied the chair, and entered into a statement of the action and progress made by the Academy and on the part of the students, dwelling particularly on the results of the last session.

Mr. Eyre Crowe, the Government Commissioner lately sent over to assist in the distribution of the prizes, and also to report on the state and advancement made by the Academy’s school, thus reports to the Science and Art Department:—

“After a ten years’ struggle, when on each successive occasion I have had, to my regret, to report somewhat unfavourably on the prospect of the students here, it is gratifying to be able to say that a better state of things may now be looked forward to, though the amelioration is certainly limited to what may be called academical rudiments, viz.: The study of life forms, whether in chalk or in oil; still, that a dozen students should come forward with about ninety works, executed with a fair amount of care, and with unusual marks of conscientious effort, gives promise of long-desired amendment.”

The President said he did not agree with the Commissioner that the study from life is an academical rudiment. At the same time, he said that the Academy hoped soon to be able to carry out the suggestions of Mr. Crowe, and to remodel the by-laws.

The progress made in the Academy is, after all, very small, when we consider the average attendance of the students, even though it has risen from “six to eleven.” It is somewhat miserable to contemplate this poverty-stricken conclave of young artists in a city which, notwithstanding its comparative poverty, showed in former days a keen appreciation for Art. The advice given by the President to the students was good and wholesome on the whole, but the results of the competition in number is disheartening. In distributing the prizes to the successful competitors, the President spoke in relation to each thus:—

“Mr. Edward Gibson has obtained the silver medal for his chalk study from life. The general correctness of proportion, and careful finish of the extremities of his drawings, have gained for them the unanimous approval of all competent judges. Mr. J. J. Moran has been awarded the bronze medal for his study from the antique. This is his first study, yet he has been successful, and I hope that his having arrived at success at so early a period of his career will not have the effect of causing him to fall into that fault of which I spoke a few minutes ago. To Mr. William Nixon the bronze medal has been given for painting from life. He has obtained the second prize in the special competition for oil painting. If Mr. Briscoe had been eligible for the prize he would have received it; but as he had already received a prize, we were very delighted to give it to Mr. Nixon, whose works were most decidedly marked as second in excellence. Mr. Briscoe has obtained the bronze medal for a copy of the study from Etty, and £5 for good attendance and general merit. He is, I understand, unavoidably absent in London, and I desire to convey to him these prizes for the steadiness of his attendance, and the number of excellent drawings he produced in the session.”

After the distribution a lecture was delivered upon the “Life and Works of Raphael,” by Mr. Jones, referring to his works in the Vatican, his early career, his early death, and his powers of invention, composition, and expression. Raphael’s works being a perfect reflect of his character (said Mr. Jones), the technical example of his life proved that in order to succeed in Art a careful elaboration was requisite.

Sir William Wilde, Surgeon John Hamilton, Dr. Evory Kennedy, and Mr. Hercules M'Donnell, were present, and encomiums were passed by each speaker on the President, and words of encouragement given to all interested. To make this country “a nursery of Art,” to use the expression of one of the speakers, something more is necessary than self-congratulation. There may be a statue in every unheaven block of marble, and a beautiful form or picture in every artist’s eye, but it cannot be talked out into an embodied object of beauty. It must be worked out, and that it may be worked out with a careful elaboration, there must be a good artistic education afforded to the student, and good examples placed before him in painting, sculpture and architecture. Truly there cannot be Art without true artists, nor triumphs without trouble and severe but loving labour.

COURT HOUSE ACCOMMODATION
IN KILDARE.

ELSEWHERE in our columns a notice will be found relative to the state of the Court-houses of Maryborough and Galway. The action of the judges is stirring up several of the Grand Jurors to do their duty or to explain its neglect. The following is an extract from the "report of the Court-house Committee," read at the assembly of the Grand Jury at the Kildare assizes:—

GENTLEMEN,—We regret that we have been unable to effect the intended alterations in the record court, and to have the entrance hall newly roofed.

We twice advertised and accepted tenders for these works, which, after much delay, were repudiated by the contractors. In November last a third tender was accepted, the contractor undertaking to have the works completed before these assizes, but afterwards requested to have the time extended to the 1st July, he being unable to procure in Dublin the description of timber specified by the county surveyor sufficiently seasoned.

These terms we were, under advice, obliged to accept. The contractor's bonds have been executed, the works are advanced, and preparations made to have them finished before next assizes.

With the exception of the crown and record courts, which are to be re-constructed, the entire building has been painted, the judge's chambers papered, and the county surveyor instructed to have them newly carpeted. The crown solicitor having resigned his front office to the Bar, we have also authorised the county surveyor to have it furnished. Maynooth Court-house has been thoroughly repaired and painted.

There is some promise in the above that matters will not be allowed to be in the same condition as that at Galway and Maryborough.

But why, may we ask, have so many of our county courts been allowed to remain so long in their shameful and neglectful state? It is scarcely a mystery; but it would be rather tedious to explain all the pros. and cons. and other belongings.

MORE CORK-HILL SCANDALS.

FRUIT that is more than ripe is, it is said, "rotten ripe"; so grow public nuisances that need purification or entire removal. Among the list of public nuisances must be classed the rotten "Reformed Corporation," whose chronic behaviour stinks in the nostrils of not only the citizens of Dublin, but of every city and town in the three kingdoms. The "three tailors of Tooley-street," or the St. Pancras Guardians, of London, are scarcely better known as a laughing-stock than the Cork-hill bear-garden of wrangling memory.

Listen, citizens of Dublin! For several days no meeting could be mustered to transact public business at the City Hall, and repeated adjournments had to take place; but as soon as a salary was required to be voted to an officer who is very well paid at present for small duties, the "whip" was applied, and the "mutual admiration clique" congregated. To the credit of four members, the voting away of £50 additional a-year was opposed as unnecessary and uncalled-for, particularly as the citizens were at present over-burthened and the Corporation in a state of declared bankruptcy. But no; the faction voted thick and thin, so Messrs. Carey, McDermott, Keating, and French were out-voted. These four members did their duty in this respect, however negligent they may be in other matters.

We have no fault to find with Mr. Ingram, as an officer or an individual; but, considering his duties, which have been always light, and are now less than ever, we think this increase of salary uncalled-for. He had already £250 a-year, with apartments, coals, gas, candles, and attendance. Reckoning the allowances, Mr. Ingram's salary was a great deal over £300 per year, and with the increase it will be very little short of £400. Here is £400 voted away, without any show of decency, excuse, or of the possibility of showing the citizens work done for the money.

With a taxation of 10s. in the pound, it is really outrageous, and the attention of the Irish Executive ought to be drawn to the matter. A motion should be brought forward to rescind this increase. We do not advocate this from any prejudice to the individual about to be benefited, but we advocate it as a necessity in the interest of the taxpayer. These increases of salaries will go on if they are not opposed. We can tell the public there are three or four more of them in contemplation, and a well-grounded suspicion exists among many people that there is a traffic made in this sort of business, in which the principle of exchange is understood, *i. e.*, that "one good turn deserves another."

We have heard quite enough about "efficiency" and the high organization of the Fire Brigade. We will be plain-spoken on the matter. If a series of conflagrations were to happen, or even a few large and serious fires, the machinery of the Fire Brigade would be unable to cope with the danger. Let not the public be led astray by delusions. Water might be had, perhaps, in abundance, but the organization would be altogether sadly deficient in power, capacity, or mechanical appliances to save the property of the city from ruin in the event of large and serious fires. Geese may still continue to cackle, and ratepayers may submit to be robbed that officials' salaries may be increased; but a day is not unlikely to come yet when our warnings will be remembered. We have preached public rectitude for public offices, and a reform of crying evils and abuses, and we will still continue our duty until public robbery and corruption is exorcised from high and low places, and the delinquents posted up to public scorn and contumely.

NAILING THEIR EARS TO THE
PUMP!

In the Middle Ages, where dishonest bakers were discovered adulterating their bread or giving light weight, they were tied to the cart tail, perambulated through the city, and received an occasional cut of the cat to keep their warmth up to the proper degree. What was done in the way of punishment to the mediæval milkman we do not know. We believe there was very little adulteration in milk until the eighteenth century. The swindle has reached such frightful dimensions of late in London and Dublin as to call for measures "short, swift, and decisive." We are glad to see that the City Analyst is doing his duty in this respect, and that the inspector of dairies and the other sanitary officers are rooting out the villainous vendors. The following is a refreshing list of

MILK ADULTERATORS.

Patrick Mackey, 76 Coombe, 70 per cent. Fined 10s. and 30s. costs.
Patrick Legan, Portobello Harbour, 100 per cent. Fined 10s. and 50s. costs.
James Toole, 80 Meath-street, 80 per cent. Fined 10s. and 50s. costs.
Patrick Murphy, Charlemont-street, 40 per cent. (second conviction). Fined 10s. and 20s. costs.
Michael O'Hara, 27 Charlotte-street, 33 per cent. Fined 10s. and 50s. costs.
Eliza Phibbs, 74 Bride-street, 100 per cent. Fined 10s. and 50s. costs.
Mary Hayden, 50 per cent. Fined 5s. and 10s. costs.
Morgan Farrell, 10 Cuffe-street, 90 per cent. Fined 10s. and 50s. costs.
John Murphy, 6 Werburgh-street, 40 per cent. Fined 10s. and 10s. costs.
Sarah Martin, Kevin-street, 40 per cent. Fined 10s. and 30s. costs.
Mr. E. A. Emis appeared for the sanitary authorities in each of the foregoing cases, and certificates from Dr. Cameron, City Analyst, as to the extent of the adulteration, were handed in in support of the prosecution.

It is with the greatest pleasure that we extend to these poor innocent lambs the benefit of a free advertisement of their 100 per cent. watery mixture. Only it would be incompatible with Christian feelings in this "isle of saints," we would go in for nailing these culprits' ears to the pumps from which they took their supply.

Mr. Barry, the presiding magistrate at the Southern Divisional Court, said in relation to the above cases:—

"The practice which had been revealed before him to day exceeded the strongest impressions he had hitherto entertained as to the extent to which milk adulteration was carried on in Dublin. He heard once of an action for the adulteration of port wine in England, in which the defence was that there was no port wine at all in the compound; and it certainly appeared to him to-day as if one of the defendants regarded the prosecution against him as absurd, probably upon somewhat similar grounds—namely, that the preparation which he sold was not milk. Anything more outrageous, more immoral, not to speak of its flagrant dishonesty, than the adulteration which seemed to exist in the sale of milk in some places in Dublin, he could hardly expect to meet. He was asked to be lenient with one woman because she was very poor, and had a sick child; but did she reflect while carrying on her trade, on the many sick children for whom, perhaps, poor but anxious mothers went for a pennyworth of milk to afford them nutriment, and got in return a mixture with 100 per cent. of water? His worship then inflicted the several fines, and, at the request of Mr. Ennis, allocated a certain proportion of the fines as costs, to go to the Borough Fund."

Let the bakers, butchers, coal dealers, and pork men be looked after. They are richer than the milk dealers, but there is every bit as great rascality practised by many of them. Apparent respectability or external effect ought not to prevent examination or seizure in the marts of the strong. Let not the humble have it to say that "the wall is for the weaker." Let Justice's justice be even-handed justice henceforth, and rich as well as humble punished alike, or commensurate with their criminality and power of paying. After a second conviction, let all offenders without exception be remitted to prison without the option of fine. Only by acting thus will honesty and fair dealing be enforced for the good of the common weal.

ANTEDILUVIAN COURTS OF
JUSTICE.

THE Queen's County and the County Galway have earned an unexpected distinction at the hands of the presiding justices of the assize. In the former place the judge on a previous occasion had directed some small improvements should be made in the comfort of the court-house for decency's sake; but the present spring assizes were let to come round, leaving things scarcely touched. The report of the proceedings conveys such a plain and unvarnished account that we produce it intact as we find it:—

COURT-HOUSE, MARYBOROUGH.

The Lord Chief Justice addressed the members of the Bar, and said he hoped that some improvement had been made in the court.

Mr. Dames—My lord, as far as we are concerned, I may say it is *in statu quo*. Nothing has been done either for the Bar or for the jury, and the arrangements are the same, except that the dock has been removed.

His Lordship—The jury have got some kind of support to their backs, but their seats have not been cushioned. I had a promise that some other improvements would be made.

Captain Villiers Morton, foreman of the grand jury, and Mr. Townsend, county surveyor, appeared before his lordship, and both gentlemen said they had brought the matter before the road sessions, and a presentment to carry out the improvements suggested by his lordship had been thrown out.

His Lordship—The presentment sessions have nothing whatever to do with the court-house. There was a small thing I requested to be done in the King's County court-house, and it was done by the grand jury, at an expense of about £20. The gentleman who has been addressing the jury here before you came in had to sit on a bench there, and I am put here in a pit I will not continue to sit in. The jury have no cushions on their seats. I would not think of asking the jurors in the Court of Queen's Bench to sit on such seats. It would be most disrespectful to gentlemen to compel them for hours to sit on such seats. This building is an antediluvian one, and it could not be arranged as a court of justice ought to be, but the work should be altered. The room I have in here is a filthy one.

Captain Morton—The grand jury are under the impression it should come before the road sessions.

His Lordship—Ask the Chief Justice of the Common Pleas, who is the county judge here, and if he says the grand jury have not the power to improve the court-house, of course it need not be done. I was in a third-rate court-house in Scotland, and the arrangements there are most perfect and beautiful, because the people of Scotland have a regard for the proper administration of the law. *This court-house is like an old barn, and a very bad barn. It is a shabby, shabby court-house, as shabby as any court you could find in the whole of the three kingdoms. A court of conscience—a forty-shilling court in England—would not be as shabby!*

It is, perhaps, some satisfaction to the denizens of Maryborough and the Grand Jurors to hear that Galway County furnishes a companion picture, and that the Chief Baron soundly rated the Grand Jurymen before leaving them alone for all eternity.

THE COUNTY COURT-HOUSE, GALWAY.

During the course of the trials a juror appealed to his lordship to protect him from being removed from his seat by the police, and added that the accommodation for jurors was very bad. The constable said he was making room for prisoners.

The Chief Baron said the court was simply disgraceful, and had no proper accommodation for any one, and ordered the county surveyor to procure forms and have them placed in the gallery for the prisoners, so that jurors should not be compelled to stand.

On the Grand Jury coming into court with some bills shortly afterwards,

His Lordship, addressing them, said that at the last assizes he had pointed out to the Grand Jury the disgraceful state of that court. He had shown them how for a mere trifle it could be made convenient, but his representations had been treated with contempt. He would make no further request of them, but let the court continue a disgrace to them and to their county. There was no use in arguing or remonstrating with the Grand Jury of that county.

If his lordship's admonition will have no effect on the stolid understandings of the Grand Jurymen and their brethren in Maryborough and Galway, it would be a work of supererogation on our part to say a word. We believe, however, that when the next assizes come round, some improvements, if only for shame's sake, will be made.

It is bad enough for a court-house to be designated shabby, but when filthiness is added to shabbiness, the condition must be very bad indeed.

Presentments are very often passed without any trouble when a *job* is about to be perpetrated, by which certain land jurymen included have an interest; but if it is a crying sanitary measure, or a reform in the most rudimentary principles, tending to the public health and comfort, nothing is done until the law has to be enforced.

Grand Jurymen can be worked up to a sense of their duties by either removing them from the lists, or by the judge ordering, on his own responsibility, in the name of the law, that the necessary work needed in a court-house should be performed. If a house is burnt down by accident, there is very often a presentment for supposed "malicious injury." Court-houses that are unfit for the due administration of the law, and upholding of the respect towards it that should be observed, have certainly suffered an injury, and the local and county authorities are the persons to hold amenable.

Many of our County Courts are shabby outside and inside, and their architecture and their "fittings" are on a par with the intelligence of a great portion of the people who have willingly and unwillingly to pass through them.

THE DUBLIN QUAY WALLS AND BRIDGES BILL.

THIS cunningly-concocted measure, of which Sir John Gray is apparently the angel guardian at Westminster, has had a second reading. Viscount St. Lawrence gave some opposition to its second reading, but Sir John and Mr. Pim appealed to the member for Galway to let the foster-child pass, and that when before a select committee the interests

of the citizens would be carefully watched by the Corporation of Dublin. Did ever anyone hear such buncombe, sophistry, and fustian? We know quite as well as Sir John Gray himself what interest the Corporation of Dublin have in assisting the Bill to pass instead of opposing it, and we will take care that nothing will transpire, when the Bill is before committee, of an injurious nature without it being made known in this city.

If the promoters were honest, why did not one or two endorse the Bill with their names? Will Sir John Gray write his name across the back of the Bill? or will Mr. Pim? The former M.P. might as well, he is so interested that the bantling should be nursed to maturity. There are eight petitions against the Bill and only three in its favour, and among the more important petitioners are the Port and Docks Board.

We said before that the formation of the Board projected in the new Bill placed too much power in the hands of the Corporation, and that they are totally unworthy in their present state of being entrusted with new taxing powers. Some Irish representatives hope to gull the ignorant by chopping up their elastic opinions or stretching them so as they can "shoot round corners," like the leather gun. One day we have a kind word in favour of the working man, then the "mother Church" is depressed by an outsidng sinner, and next the taxation trigger is drawn, and down comes a whole shower of private bills on hridges, quay walls, tramways, and other *hocus pocus* commission jobs. It is a relief to our minds that we do not dabble in politics or private bills, and have not to soil our hands with the dirty jobs of parliamentary lobby and chamber practice.

The Liffey's stink is bad enough, and we do not care to scrape acquaintance with other foul smells. What a pity that those who are voted into office to look to its purification are not daily immersed in its foul waters by way of penalty for their neglect. If this punishment was meted out to the guilty long since, we would have heard very little in this generation of the Dublin Bridges and Quay Walls Bill.

AUTOTYPE PRODUCTIONS.

IN our last issue we gave some particulars about the graphotype art—we will now afford our readers some interesting particulars about that process called Autotype.

We do not vouch that its success is equal to what the description we give would seem to prove. We are indebted to a London daily contemporary for the account which we here furnish. Our contemporary seems to think that photography has reached, in the new process aptly named Autotype, its highest possible or even desirable point of utility as a servant of the Fine Arts; and the artist, the student, and the man of taste may recognise in the works published of late by the Autotype Fine Art Company a boon of inestimable value. The method which has recently been brought to perfection is no mere fortuitous or hasty discovery, but a laboriously constructed operation, from which numerous difficulties have had to be removed. Many scientific men have had a hand in promoting this triumph, and in conducting thereby to the realization of a distinct era in reproductive art; but the greatest stride was made by Mr. Swan, whose process was, for more than a year, worked by the Autotype Printing and Publishing Company, with no inconsiderable success. There still, however, remained one or two practical objections: and it was reserved for Mr. J. R. Johnson to solve, by a sort of process of exhaustion, the problem which had so long baffled the most acute and indomitable minds. His patent for carbon printing, although its date is only February, 1869, is universally accepted, and three Government establishments—Woolwich Arsenal, Chatham Dockyard, and the East Indian Museum—have taken licences to work it. The process has been adopted by many of our most distinguished amateurs, as well as by professional photographers of eminence. But it is in particular reference to the Autotype, and its promotion of artistic knowledge and taste, by the spread of design and the opening-up of the best fields of study, that we now speak of Mr. Johnson's process. One foreign licensee alone, the renowned M. Braun, of Dornach—who may be said to have done for art what Baron Tauchnitz has done for literature—has produced in Autotype more than six thousand fac-similes of works of the Old Masters, from the Louvre Museum, the Gallery of the Uffizi at Florence, the Albertina collection at Vienna, the palace of the Vatican, and other noble storehouses of art. All the great frescoes of Michael Angelo, on the ceiling of the Sistine Chapel, have been by this invaluable means brought home to English students; and very lately the enterprise of the Autotype Company has been shown by the fac-simile productions of Suyderhof's engraving of

Terburg's "Congress of Münster," presented to the nation by Sir William Wallace; the "Consecration of Archbishop Parker," from a drawing by Dyce; and Ward's famous picture of the "Antechamber of Charles the Second," so marvellously described by Macaulay. In these, as in all the indelible solar pictures obtained by the same process, it is noteworthy that the false and fleeting silver of ordinary photography is replaced by carbon, red chalk, bistre, or indeed by any actual pigment. We cannot do better, in concluding this notice, than quote the recommendatory words of Mr. Ruskin, who writes thus of the Holbein series from the Basle collection, reproduced by the Autotype process:—"They are, in all important respects, as instructive as the sketches of which they are nearly fac-similes, and I have no hesitation in calling this series one of the most important educational art works that have yet been published in Europe."

There can be no doubt but that the process of Autotype, even at its present stage, possesses many useful features; but before accepting our London contemporary's opinions as to its real worth, we are content to wait a little longer for fresh evolutions and adaptations of the process before counting up our artistic gains. We are ready to hail every new invention or process that may minister to the public good, either in art, science, or pure enjoyment, and when we have learned a little more from a personal observation of the process, we will be prepared to speak of it as it may deserve. We may say this, however, at once, that Autotype is not fine art or art *per se*, though it and its cognate processes may act as a very useful handmaiden to art.

STAMPING OUT THE VERMIN!

WE are glad to perceive that in several quarters our counsel has been acted upon, and that betting and money-lending swindlers are untroubled, and the knaves hunted down. If Exchange Court would do its duty like Scotland Yard, the rascals would not be left a nook in the city to carry on their vile traffic. While we have moral (?) journalists and newspaper proprietors who still afford to vagabonds advertising facility, the swindlers will still live to a limited extent; but it is our intention to post every newspaper in this city and country up for the unmitigated scorn and contumely of honest men, who will still persist in their criminal and obscene trade. The love of filthy lucre has so eaten in like a cancer to these disreputable journalists' hearts that their sense of shame is gone, and nothing but the strong arm of the law, and the indignation of the populace will drive those newspaper receivers to respect religion or morality.

We ask our readers and fellow-citizens once more to take a peep into some of our metropolitan and daily newspapers, which are an open sesame for the well-paid-for announcements of *convicted medical swindlers*, or rather mock medical ones. Let them look at the advertisements of Drs. Smith, Hill, Hammond, Watson, Barnes, Jenner, Curtis, Jones, Reynolds, and a whole host of other vagabonds whom we mentioned before, and whose names, addresses, and several aliases may be found in former issues of our paper.

We perceive that one of our magistrates in the city has already given a significant warning, which must be again repeated.

His worship is reported to have said—"Seeing several of the inspectors of police present, he wished to direct their attention to the disgraceful system which was now so generally carried on of baying obscene and immoral tracts and books thrust into the hands of persons—ladies and gentlemen—walking in the public thoroughfares. That morning he had received a most scandalous production by post, and he begged to intimate that should any of the persons who carried on this—he might call it business—be brought before him, they would be dealt very severely with. The practice was one which could not be allowed; it must be put down with a heavy hand."

Let Exchange Court, therefore, do its duty, and if they require authority let them appear before any of the sitting magistrates, who will guide them to what they may or may not do. English medical quacks are now crowding into this city and other towns in Ireland, London being getting too hot for them lately. Several of our provincial newspapers—possibly some of them in ignorance—are giving every facility to these vile wretches; but with the examples of metropolitan semi-religious and *soi disant* sporting publications, they imagine they can stand excused.

Let there be no quarter or no money given in this city to quacks or their newspaper assistants. There is not one of them in this city ignorant of the swindle and the obscenity they are assisting to live, and we pray that retribution, swift and crushing, may overtake them if they persist in their conscious criminality.

SPURIOUS DIPLOMAS AND ACADEMIC DEGREES.

WE cannot too often caution the citizens of Dublin and all other persons throughout the provinces against unprincipled adventurers, scholastic and medical, but principally the latter, who are and have been imposing upon their credulity. Mock German and American degrees are trafficked in to a great extent. As some of these degrees have a semblance of reality about them, we will give some particulars of the way they are obtained, and the *modus operandi* belonging:—

"Among the advertisements about academic degrees *in absentia* which are industriously thrust under the notice of aspirants to cheap professional dignity, there was one series which emanated from a so-called University of Philadelphia. These occasioned innumerable applications from respectable clergymen and others to her Majesty's Consul at Philadelphia, who was expected to be able to furnish full information about the accommodating dealers in academic honours. Mr. Kortright, observing that deception was being extensively practised on the unwary, communicated with the Provost of the University of Pennsylvania—a *bona fide* institution of high standing in the States, the title of which had presumably been imitated by the sham institution dubbing itself "University of Philadelphia." Dr. Stitte answered that he had been subjected during the past year to the same annoyance as the Consul—clergymen and others having asked him for information about the advertised degrees *in absentia*. He 'had reason to believe that the advertisers were accredited agents of one or two disreputable medical colleges in this city.' Efforts were being made, however, to repeal their charters, owing to their connection with this illegal traffic. Dr. Stitte enclosed copies of the existing regulations of the University of Pennsylvania in regard to honorary degrees. In September, 1871, the board of trustees ordered a reprint of extracts from the statutes of the University to be made for answering such applications as were then being received from England. These forbid honorary degrees to be conferred unless the mandamus ordering them be signed by two-thirds of the trustees, and be preceded by a nomination of the candidate to stand for at least three months. The State Legislature of Pennsylvania passed an Act nearly a year ago, rendering illegal the sale of degrees for money. This Act declares: 'That it shall not be lawful for any university, college, or other institution incorporated under the laws of this State, with power to grant academic degrees, honorary or otherwise, to confer the same upon any person or persons upon the payment or promise of payment by any person in consideration thereof; and any person knowingly signing a diploma or other instrument of writing purporting to confer an academic degree when such consideration has been paid, or promised to be paid, shall be guilty of a misdemeanour, and on conviction thereof be sentenced to pay a fine not exceeding 500 dollars, and to undergo an imprisonment not exceeding six months, or both, or either, at the discretion of the court.'

Consul Kortright communicated to the Foreign Office the result of his correspondence with Dr. Stitte, and suggested the facts should be published for the protection of unwary degree-hunters, as well as for the vindication of the respectable colleges in the State. The Foreign Office has supplied some of these papers to the English journals, and we have great pleasure in making the information more generally known in this country. It will be seen from the above abstract that no legal degree can be procured for money in Pennsylvania. Citizens of Dublin, beware of quack doctors north and south of the Liffey, whose foreign diplomas are "bosh," and whose practice is systematic swindling, slow poison, and certain murder.

SANITARY MATTERS IN THE CITY AND PROVINCES.

EXCEPT in the matter of some very commendable prosecutions of milk adulterators and sellers of diseased meat, sanitary vigilance is not as yet far advanced.

Still our citizens are crying out, north and south of Dublin, about the filthy condition of the streets; but the Town Council, who say they have not sufficient funds to increase the number of scavengers, can see no difficulty in the way of increasing the salaries of officials who do next to nothing for the high salaries they receive.

In the Northern Police Court a sanitary case, arising out of the neglect of making necessary improvements suggested by the Engineer of the Sanitary Committee, was heard, but as usual the

attorneys appealed on behalf of their clients, and legal quibbles were raised to defeat justice. The penalties that were inflicted must be enforced, and warrants issued to that effect. If appeals are to be made afterwards or points raised, let those fined for selling putrid meat lodge the costs in the court first, and then proceed in vindication of their injured innocence.

What is the Public Health Committee really doing in respect to the foul and filthy condition of several of the back lanes and streets? We are told that they have resolved to employ persons to detect parties throwing vegetable and other refuse upon the streets, and that the police authorities are to be requested to help them. If we are to have sanitary officers or sanitary detectives, let us have them by all means, and let them be paid as such; but we are opposed to paying one set of men and asking another set to help them whose duties at present consist in preserving the public peace, and protecting the public individually and collectively from violence and robbery.

The removal of the scavenging soil by the employment of hopper barges we have already alluded to as a useless and unpractical method. Here a monstrous system is about being perpetrated. Soil, that might be utilised by the county Dublin farmer, is to be collected into barges, and these barges are to be emptied into the Bay of Dublin. There will be plenty of work for the Ballast Board and the dredging machines after this piece of folly and engineering bungling. Mr. Parke Neville ought to be voted a medal and an increase of salary for his bright idea.

On the report of the Public Health Committee, £100 was voted towards the funds of the Cork-street Fever Hospital for providing accommodation for small-pox patients. The disease is still prevalent.

The different townships around the city are somewhat more vigilant of late in sanitary matters.

At Maryborough small-pox still exists, but not to any dangerous extent. At Kilkullen several parties were summoned for neglecting to get their children vaccinated.

Adulteration goes on in the provinces as well as the city, and butter is sent to the markets hollow in the middle and filled with water. One Mary Daly has been playing pranks in this manner at Carlow Graigue, and has been fined 10s.

In Athy, sanitary and relieving officers have been complaining of one another as to their duties in a small-pox case. The Athy Commissioners and Guardians ought to keep their officers to their respective duties, and both of these bodies ought to know by this time what their distinct duties are, without giving rise to a correspondence with the Poor Law Commissioners.

In Mountmellick small-pox cases prevail, and patients have been unwisely drafted from other towns to the workhouse wards here.

Throughout the province of Leinster a good deal of illness prevails, and much sanitary vigilance is required on the part of the medical and sanitary officers of health.

The local press throughout the country ought to make known every case of infectious disease, and they could not perform better work than to earnestly and continuously urge upon the Town Commissioners the sanitary requirements needed, and the absolute necessity that exists for having a pure and copious water supply, and a daily cleansing of all streets and back places. A house-to-house visitation is also imperatively necessary.

MISCELLANEOUS.

THE QUEEN'S STATUE, BOMBAY.—This statue, just unveiled at Bombay, is a colossal sitting statue of her Majesty, in the best Carrara marble, with an elaborate canopy nearly 50ft. high, also executed in the best marble of various colours. The royal coat of arms is placed on the front of the pedestal, and the Star of India in the centre of the canopy, while on the enriched part, immediately above the statue of her Majesty, the rose of England and the lotus of India, accompanied by the mottoes "God and my Right," and "The Light of Heaven our Guide," are introduced. Besides these accessories, others also are introduced in the design, such as the symbols of strength and friendship, namely the oak and ivy leaves respectively adorning the plinth and capitals of the columns with the oak, ivy, and lotus leaves enriching the mouldings surrounding the entire work. Four panels between the columns have been provided as spaces for the inscriptions in four languages. The cost has been £15,500, the design was previously submitted and approved of by the Queen. The Guicower of Barsdon assisted at the unveiling ceremony.

SANDRINGHAM HALL.—We have already announced that Mr. R. Rawlinson, C.B., had been instructed to inspect the sanitary arrangements of Sandringham Hall; and the day after the Royal visit to St. Paul's Mr. Rawlinson and Mr. Humbert, the architect, attended at Marlborough House to report the result. The drains are fortunately nearly all external to the building, but they end in a temporary covered cesspool, the overflow from which passes into a plantation. The roof and surface water is carried by separate drains to an ornamental pond. The closets are nearly all against outside walls, and the pan-traps are properly ventilated; but the closets themselves are not sufficiently ventilated. The hall is defective, as regards ventilation throughout; and the workmanship of doors and windows is so perfect that foul air cannot escape nor fresh air enter, as in the loosely fitting doors and windows of older houses. The halls, corridors, and stair-cases are heated by hot water apparatus. Adequate means of ventilation will be provided, the cesspool will be removed, and the drains are to be ventilated outside the building. The water is hand-pumped from a local well, and is not of the best quality, as the strata are full of iron. The farm buildings, cottages, &c., have only pumps. It is proposed to establish waterworks at or near the gas works. A well is to be sunk to the chalk. Engine power will be used, and a water tower and elevated tank will give pressure sufficient to throw water over the house at its highest part. The same works will supply the stables, and may easily supply the cottages on the estate. His Royal Highness has evinced the deepest personal interest in these proposals, and has expressed his wish that his cottage tenants may be provided with similar arrangements for securing a good drainage and a wholesome supply of water. It is hoped that his royal example may be followed very generally, for there are few country mansions without cesspools and ill-ventilated drains, or in which the water supply is altogether beyond suspicion.—*Lancet*.

TO CORRESPONDENTS.

CHRIST CHURCH RESTORATION.—You will be pleased to see that we have anticipated the subject.

BOARD OF WORKS.—What is written is written, but what is known is not as yet all told.

"CIVIL ENGINEER."—Judging by your statement, you ought to be qualified for practising the profession.

"CHIMNEY ORNAMENTS."—The title of your paragraph is not political, but your questions are, and we dislike touching upon the subject. It is as great a mystery to us as to yourself how some poor Irish M.P.'s support themselves in London during the session. Some we have known to be engaged on parliamentary jobs, private bills, commissions for negotiations and voting for certain bills; others of them we have known to have grubbed out some pocket money by wine commissions and writing a "London correspondence" to country journals. There are a few Irish M.P.'s in London who are continually lending themselves and their names as "Chimney Ornaments," as you happily term them. They are the eternal chairmen of public dinners and religious foundation stones, and by assisting at "turning the first sod" they procure generous praise, cheap wine, and late suppers. It is much against our will to tell you even this much—"sufficient for the day is the evil thereof."

THE DRAMA.—Alas! for it at present, while it is represented by such stock-jobbers and managers as we see in this city and elsewhere. With slight exceptions our present actors are coarse mummies, and our actresses unsexed females. Silken obscenity walks the stage in "tights," and the greater approach to nudity and wantonness the graver and more fulsome becomes the praise of the snivelling and soulless fops who infect the boxes, and the pandering and contaminated penny-a-liners of a corrupt press. The stage was once an exemplar of courage, virtue, and manhood; but it will be soon, if a reaction does not set in swiftly, an open sesame of gilded iniquity.

POST-OFFICE DELAYS.—Of late the morning delivery of letters from England is delayed long after their time, owing to want of efficiency in the Irish Postal Department. It is also said that the "Paul Pry" system is again being developed. What is up now? Are the rows of the "Internationals" the cause of the delay of our letters? Whatever the cause may be, there is a public protest needed just now on the matter.

A notice of some new works is held over until our next issue.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—JAMES EPPS & Co., Homeopathic Chemists, London. Also, makers of Epps's Cacaoine, a very thin beverage for evening use.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filled with vestas, at one penny. Any Tobacconist, Grocer, Chemist, or Chandler will supply it.

The Irish Builder.

VOL. XIV.—No. 296.

The Builders of Christ Church Cathedral,



HO were they? Were they rovers from Denmark, English settlers, travelling masonic craftsmen from more eastern nations, or natives of the fatherland? Supposing there was an original architect, and that architect was not a bishop besides, was he a native of South Wales, or from any other portion of the Principality? We put these questions in sober reason, for we believe the time has long since arrived when we ought to know what constitutes Irish architecture, as well as what constitutes so-called Saxon, Norman, Romanesque, and Early English. Some of our native annalists and antiquarians have worked us unmeasurable mischief, and, not content with recording history in relation to architecture, have invented theories to square with their own ideas.

Dr. Ledwich, who partook very largely of the character of the pedant, and who assumed a great deal more than he could prove, gave credit to the Danes for performing various architectural feats, to account for which the whole tenure of their career, from beginning to end, in Ireland, furnishes no sufficient evidence. Until the vestiges of the Danish race left behind in Ireland after the final overthrow of their countrymen became absorbed in the native element Danish genius achieved but little for the architectural or for any other of the arts of this country. Now, it is quite impossible that any race of people could have arrived at such perfection in ornamental design in various forms, kindred to architecture as well as belonging to it, as the early Irish, without showing also proof of their native genius in building construction.

Our co-labourer, Mr. Brash, has already proved, and will, we have no doubt, still further prove, the distinct claims that this country can put forth in the developing of a style of its own, which, though it may not be complete as a whole, possesses sufficient characteristics and sufficient antiquity to entitle it to a separate classification. We do not wish to trench upon the ground so ably traversed by Mr. Brash, and indirectly assisted by the foregone labours of the late Dr. Petrie; we are quite content for the present to leave the matter in many particulars to his safe discussion. We cannot resist, however, at this opportune moment, when church "restorations" are general, and yet may become more general in this country, to put people upon their guard from accepting theories and adopting styles which are not warranted by the basis on which they raise their superstructure.

Whatever this kingdom may owe to Saxon, Norman, Anglo-Norman or Semi-Norman, or to the later Early English or thirteenth-century Gothic, there is no reason at all for supposing that she had not native artificers capable of producing examples of these several styles. In what is called the "Romanesque Period" there are abundant proofs, and, prior to that period, of the pro-

gress made in church building in this country, and sufficient evidence of it is turning up at present in Christ Church Cathedral.

Although the late Dr. Petrie was no architect, yet he was a painstaking antiquarian and artist. His studies and associations in this country, coupled with his life-long labours, gave him great opportunities for obtaining a good insight and knowledge of architectural details. Although not subscribing to the whole of his Round Tower theory, we are one in opinion with him and conviction in what he has said of Romanesque, Saxon, Lombardic, Tudesquo, Norman, and Anglo-Norman styles in relation to Ireland. We do not see how any one country can lay a sole and distinctive claim to any one of these styles, and more particularly when it comes to be made a question of so-called Saxon, Norman, or Anglo-Norman. We do not intend to invent a new nomenclature of Saxon or Gothic styles; but were we inclined we could show reason for the words Anglo-Celtic, Norman-Celtic, or other obvious coinages, as well as the ones at present used.

We are free to admit that Ireland at present does not possess such a catalogue of noble Gothic edifices, or mixed Gothic as England, and there are cogent reasons why she does not. In early examples of Circular and Gothic mixed structures this country can, indeed, at the present moment, afford good proof, although the great majority of the buildings are small and in ruins. Who can tell, at this date, to what extent we have suffered from the vandalism of both the Danish and early-English settlers, and the consequent and chronic state of warfare which lasted for centuries? Our annals are full of details of ravages and burnings, the tumbling down and wanton destruction of hundreds of ecclesiastical edifices, from the Danish period down to the reign of Cromwell. Our architecture has suffered indeed; but the mists are fastly passing away that enveloped its rise and progress.

In Christ Church Cathedral there is nothing either so complex, or ornate, or so singularly peculiar as would go to prove that it was otherwise in design or construction than an Irish mixed Gothic structure, owing nothing to foreign artists or craftsmen, save in the preservation of features common to the general class of Early Gothic buildings.

In Christ Church we had, therefore, a Hiberno-Romanesque as peculiar to this country as her Round Towers, and in addition we had some good specimens of "Early English" and a portion of later styles. It is proposed, as all are aware by this time, to restore the Cathedral, and presenting it when finished as a beautiful and perfect specimen of thirteenth century Gothic. Perhaps we can have no great objections to such a restoration, for any decent restoration or repair would be better than allowing the venerable structure to drop into utter ruin and decay. There is one objection, however, which we would make, and that is—that we are opposed to any entire or sweeping elimination of the Hiberno-Romanesque features which have existed to the sight heretofore, and which have also been recently discovered.

Thirteenth-century Gothic is very beautiful, no doubt, and from the brain of Mr. Street a new cathedral could be given to us that would meet general approval. Still we like what is good and perfect in an old, a valuable, and historic heirloom preserved. We like restoration, but we like preservation much

more, and we are entirely opposed to sweeping replacements. We speak with no invidious motives, for we are well pleased indeed, and thankful that the generous liberality of a princely citizen merchant will give us an edifice worthy of the city, as a piece of architecture.

We have docketed some points and details in relation to the restoration of Christ Church, but we cannot pursue the subject any further in this issue of our journal.

SANITARY NEGLECT—KILLING NO MURDER.

A VERY important meeting was held at the Mansion House on Friday, the 5th, for the purpose of providing relief for the sufferers by small-pox, and organising hospital accommodation in the future for those afflicted with the disease. It is needless almost for us to remind our readers of how often and how urgently we have advocated these sanitary requirements, which can no longer be deferred. Without mincing the matter, we boldly lay at the door of our present incompetent Corporation the deaths of the majority of those who have already fallen victims to fever and small-pox in the vile dens, foul streets, and back slums of this unfortunate city. What a miserable explanation the Corporation, as a body, had to offer for their neglect, at the Mansion House meeting.

The Lord Mayor evidently felt the difficulty of his position, and Sir John Gray's explanation of the powers of the corporate body, made matters still more suspicious and reprehensible. Months and months have been allowed to pass since last autumn in a make-believe endeavour to procure a site for a temporary hospital or convalescent home, and the blame has been thrown upon the Government for their refusal to allow Grangegorman Prison to be utilised. Ever since that refusal months have passed, and what has been the sum total of the Town Council's labours? Promoting private bills, voting increased salaries from a bankrupt exchequer, contesting in courts of law doubtful claims, opposing a public audit of their accounts, devising methods for polluting the Liffey and contaminating the Bay, attempting by every ruse to raise the rates, and doing a dozen-and-one things besides, every one of which was contributing to make them more ridiculous in the face of the country, and of rendering them the laughing-stock of Great Britain.

The plea of the Corporation, or rather of a junta of the Corporation, will not hold water. There was no difficulty in the way of obtaining a site, north or south of Dublin. There were plenty of waste spaces whereon temporary sheds might have been erected, and, save what the Public Health Officers achieved, the action of the Corporation as a body was not only shamefully small as a measure of good, but criminally great as a measure of imbecility. In fact the Corporation succeeded in doing what they have ever been proficient in doing—nothing!

How the unworthy representatives of the city could come before the public at the Mansion House meeting and defend their conduct, exceeds all bounds of common effrontery.

It is consoling, at all events, to see that there were many honest and generous sympathisers outside the ranks of the Corporate body, who were anxious and willing to assist in organising a practical effort even at the

eleventh hour. Yea, even later, when thousands have been slaughtered, poisoned, let to die with an indifference as cold-blooded and as inhuman as if they were a lot of dogs or vermin that required neither mercy nor shrift.

The Corporation of Dublin, as at present composed, are utterly unfit to be entrusted with sanitary powers, or even with the rights of citizens; and if the Press of this city could only be got to tell the simple truth about the things in general in relation to corporate management, the tenure of a great portion of the present members of the civic body would be very short indeed.

One of the spokesmen of the corporate body tells us, indeed, that the Corporation have power by the Sanitary Act to build an hospital for the reception of the sick, and levy rates for its maintenance. We have no doubt of the willingness of the Municipal Council to levy rates—that is just the sort of work they are best fitted to perform. How ridiculous it is to hear a person, who ought to know better, talking of certain hospital accommodation as tending to “brand the recipients with the disabilities of pauperism.”

No hospital accommodation, no matter what kind it might be in times of epidemic, could possibly brand the poor or degrade them. To help to heal the sick, or to restore the afflicted to health, is mercy and real charity, and not degradation. It is the Corporation of Dublin who may be thanked for degrading the city and its poor by their criminal sanitary neglect, which has been let to grow from year to year until Dublin has been converted into one large seething cess-pool and open lazar house. Let us hear no more of this despicable corporate clap-trap of hospital degradation. Self-congratulation is out of place in the face of deadly sickness and chronic filth, and water is not the only requisite, nor a convalescent home the only want which Dublin stands in need of at this trying moment. Destitution, to a great extent, has resulted from sickness, as disease has resulted from dirt caused by sanitary neglect. So people require to be helped to employment and relieved until they are fitted to work. Increasing the water supply is very essential; but the poor cannot live on doses of water while their homes and surroundings are one mass of misery, filth, and disease.

Lift them from their wretched homes; give them proper and speedy hospital accommodation; organise temporary relief until their health is restored, and do not tax the already over-burthened who, perchance, may stand very little removed above similar aid than the recipient of present relief.

If this is effected speedily, the meeting held a few days ago will not have been held in vain, even though held too late to save a number of humble but useful and valuable lives. There is quite too much of hair-splitting and classification of individuals in this country. Distinctions, to a great extent, should cease to be drawn when epidemics are abroad—pauper and workman should be helped, and trader and mechanic indiscriminately, and with equal care. Those who desire exceptional advantages can, of course, pay for them; but the great consideration is to preserve human life. No workman is degraded by a pauper, if it should happen so, being placed in the next ward to him. Human life is human life, and the grave levels all distinctions hereafter. We are all martyrs to circumstance; and in times of peril, it behoves us to show pity for others as we expect mercy and pity ourselves.

One word more. If the citizens, as a body, do not urge on the provisions of those matters under discussion, we fear the Corporation will miserably fail in meeting the difficulty that they have themselves created. Further imbecility and incapacity on their part may reasonably be augured, for already they have blown hot and cold, and played fast and loose with the lives of the people, employing, as far as was possible, the horrible doctrine that

KILLING IS NO MURDER.

UNDEFINED FOUNDATIONS.

It is of the utmost importance in building that specifications shall be prepared in such manner as will leave no cause for complaint, either upon the part of the proprietor of the building, or of the builder who may be employed in its construction. It may not be always practicable to please either; nevertheless, justice should be measured with an even hand between both parties. Unfortunately it sometimes occurs that the architect's zeal in behalf of his client induces the preparation of these documents in so one-sided a manner as permits chance to be always in favour of the latter, and which in no mercantile transaction outside of building would be tolerated for an instant.

It is now some thirteen years ago since the Council of the Builders' Association of Ireland directed public attention to several clauses in specifications, which they termed “oppressive,” and through its means they were, we are rejoiced to say, discontinued in all respectable architects' offices; but it now and then comes to our knowledge, they are still persevered in, possibly as stringently as ever, and sometimes in quarters where they should be least expected. One of these we will now particularise—supposing a case for example. The first paragraph in a specification prepared, say for a suburban villa, runs thus—“The trenches for foundation walls to be sunk to such depth as may ensure a solid stratum for foundation walls.” In the sectional drawing, to which this specification refers, we will suppose that an ordinary depth of foundation is shewn with its off-sets, well-defined, from which the intending contractor prepares his quantities, overlooking the clause we have mentioned, and which exists in the specification. The ground upon which the building is to be erected appears as a green field, which has never been broken up for tillage, and, in ordinary experience, a solid stratum should be obtained at a depth of about two feet; but this field had been formerly drained by small trenches filled with broken stone, and modern engineering, by introducing main sewerage in the district, has cut off the outlet for these drains. Thus for some years the rain-fall has been gradually accumulating in the underlying strata. The excavation proceeds, three, four, five, six, or perhaps a greater number of feet have been reached before a reliable foundation is to be had. What is the consequence? The contractor, perhaps a young beginner, has already spent the greater part of his small means in laying in a stock of material, and fearing he will be at heavy loss, at the outset appeals to the proprietor (who, by the way, happens to be one who is not over-gifted with a high sense of moral rectitude), and by him is referred to the architect, who, perhaps, feels that an injustice, which it was his duty to provide against, is about to be inflicted; yet, relying upon a further clause which he has introduced in the specification, that “the

opinion of the architect shall be final, binding, and conclusive,” decides upon the contractor's liability, and the curtain falls over the first act in the drama, which will eventually be played out in the Bankrupt Court. We have not overdrawn the picture; on the contrary, it may be upon a smaller scale than sometimes occurs in reality. Some few years ago a specification containing a similar provision for the foundations of the piers of a viaduct caused the ruin of a highly respectable contracting firm. Generally speaking, however, this clause is inoperative, because there are few so regardless of the mandates of moral law, or the duties they owe their fellowman, as to take advantage of it. Nevertheless, it should not exist in practice. While it does we will war against it, and do our utmost to restrain builders from signing agreements which contain so unjust a provision. If extra foundations are necessarily to be constructed, the extra expense must be borne by the proprietor, and not the builder.

THE GAS SUPPLY OF DUBLIN.

THE Alliance and Consumers' Gas Company have published their half-yearly report, and, though it may be a matter of self-congratulation for the directors, it is not at all a matter of congratulation for the citizens. During the autumn and winter we have had experience of the miserable illuminating powers of the supply furnished by the company; and, for our own part, we had more than once to return to the ancient tallow as an auxiliary. It is also fresh in our recollection that numerous citizens complained like ourselves, and if we remember aright, the Corporation of Dublin looked for redress for some default on the part of the Alliance and Consumers' Gas Company. How is it that all this is forgotten or ignored by the very journalists that complained, and who are now loud in commendation for business reasons that need no particular mention? On the 1st of next July, we are already informed, the standard of illuminating power will be raised from 16 to 20 candles, but not without a corresponding increase of price. For what are we called upon to feel thankful? Will the dropping off of one or two burners keep the price at the same dead level? As it is we pay for a greater illuminating power than we are given. Will our great gain be in the fact (if fact it will be) that Cannel coal will be used?

The whole congratulation in which we are called upon to participate is wholly on the one side.

The accounts, we are informed, exhibit a net gain on the profits of the half-year of £17,665 10s. 6d., from which it is recommended a payment of a dividend at the rate of eight per cent. per annum free of income tax. All this, of course, is highly satisfactory to the semi-enlightened intellects and dwellings of the citizen consumers.

The gas companies, when they amalgamated, promised the citizens, as a united company, great blessings.

When there were two companies there was some chance of fair dealing; but with one company there is now a complete monopoly, which must not be allowed to exist, to the injury or detriment of the present citizens.

Public companies are in the habit of imagining that they can, by their position and influence, command a good word, whether they deserve it or not; and we have known a few of them, in the course of our experience, who would pay for commendation sooner than be without it. Of course it may be a matter of indifference to the Gas Company of Dublin whether this journal can honestly praise their efforts or not; but it is a satisfaction to ourselves to have it to say that we never blame for the mere purposes of blaming, or praise because we have an interest in bestowing praise. We would rather that we could con-

scientifically thank the Gas Company of Dublin for their past efforts, and augur satisfaction from their promised future.

Whenever they give evidence what they are about, not to bestow a boon, but in giving fair value for fair payment, we will be one of the first of their supporters.

In our sphere of public business and duty we have had good cause for complaining of having to pay for an article which we never received, except in name; and too often our civil remonstrance was met with an incivility of manner which is not characteristic of gentlemen, or of a body depending for their support or their dividends upon the patronage of the public. Perhaps the promised increase of illuminating power will bring an increase of manners and good breeding among the officials, and a decrease in the annoyance caused, if not a reduction in the cost of the gas supplied, by the Alliance and Consumers' Gas Company of Dublin.

ANCIENT IRISH CROSSES AND THE EXHIBITION.

THE subjoined letter was addressed last month by Mr. Thomas Drew, R.H.A. and Hon. Secretary to the Institute of Irish Architects, to the Fine Arts Committee of the Exhibition Palace. The suggestions of Mr. Drew were well entitled to every consideration, and we hope the committee have at all events to some extent acted upon them:—

GENTLEMEN,—May I take the liberty to suggest to your Committee what would, in my opinion, be of the highest interest if added to the exhibition, viz.: reproductions in plaster of the magnificent Celtic crosses of Monasterboice and Clonmacnoise, which could be produced, I have reason to believe, at a most moderate cost. The moulds from which the castings were taken, which were such striking objects at the Dublin Exhibition of 1853 (now at the Crystal Palace, Sydenham), are at present lying in the cellars of the Royal Irish Academy house, and are easily available. I have made an examination of them lately, and have reason to believe that the moulds of a Clonmacnoise cross at least are nearly or altogether perfect—those of the Monasterboice (West) cross less so, but I would hope such portions as are injured or missing might be replaced. I am very intimately acquainted with every detail of both crosses, and would, with the utmost pleasure, undertake to superintend their reproduction. I need scarcely point out to your committee, many of whom, no doubt, are familiar with the crosses at Sydenham, what magnificent and striking objects of permanent interest in the Exhibition Palace such noble monuments would be. It might not be too much to hope that sufficient patriotic interest in ancient Irish art might be aroused to lead to the casting and reproduction of other almost equally fine crosses which exist in great number, and which grouped in one building would form an exhibition unique and unlike anything else in any other museum or exhibition in any other country whatever. The providing of distinct departments of Celtic art will perhaps occupy the attention of your committee. I might perhaps recall to your recollection in addition to the collection of the Royal Irish Academy, the following sources which occur to me:—Collection of Mr. Day, county Cork; do. of Mr. Walsh (a very remarkable collection by a local antiquary, a carpenter), Dromore, county Down; St. Columba's College, Dublin; the R. C. Bishop of Limerick, who holds possession of the celebrated Ardagh cup of fibula, and the Museum of the Royal Historical and Archaeological Society of Ireland, Kilkenny. I feel little doubt that some energetic action would get together such a collection of Irish Antique Art as would be of the highest interest, and might perhaps lead by the reproduction in plaster, &c., to the formation of a permanent "Irish Court" in the palace, which would not only be of the highest adornment to the building, but would, I can assure your committee from some experience, have interest not only for Archaeologists and Art Students, and visitors from other countries, but for artisans and art-workmen generally in this country.

The *Armagh Guardian*, in giving publicity to Mr. Drew's suggestion, adds:—

"It has occurred to us that in addition to St. Patrick's bell and the celebrated 'Book of Armagh,' which will doubtless be lent to the forthcoming exhibition, this ancient city might contribute a model in plaster of, at least, one of the many crosses that stood in our streets during the middle ages, and ac-

cording to Rev. Dr. Reeves—'Marked boundaries and limits of certain jurisdictions.' One of these crosses stood at the entrance to the Rath at the head of Market-street for six hundred years, and its remains are now lying broken at the south-east angle of the Cathedral. It was, of course, in a comparatively high state of preservation, when Stuart, our local historian, employed John Bell, in 1819, to make a drawing of it as an illustration of the memoirs of this city. An engraving of this is, we all know, in existence, from which the model that we suggest might be prepared. The sculptures on the Armagh cross represent our first parents in the garden of Eden, the flood of Noah, and other scenes from the old Testament, and the descent of the Holy Spirit, the crucifixion, and other events recorded in the new Testament. It was thus our ancestors, before the discovery of printing, depicted the chief events recorded in the Bible, by sculpture or picture writing. In the middle of the twelfth century four crosses stood in this city, two of these were named after our patron saints Brigid and Columba, the other two were named in memory of local celebrities, Bishop Eoghan and Sechnal. In the fifteenth century Primate Prene brought an additional cross from Raphoe, and a portion of it stood for a long time close to the western entrance of the Cathedral, and was vulgarly called St. Patrick's chair.

"The beautiful cross so carefully preserved by Sir James Stronge, Bart., M.P., at Tynan, was carefully examined by Dr. Petrie, and elicited the unqualified admiration of that most distinguished antiquary. "These Irish crosses were sculptured at a very remote period, and their extraordinary style of ornamentation is, after mature enquiry, assigned to the taste and exuberant fancy peculiar to the Celtic races."

Our Northern friend is quite at home in his remarks, and we can commend the warm interest which he takes in all subjects of the kind.

The creation of an "Irish Court" is worthy of our best endeavour, but even without a separate court much could be done to carry out the idea thrown out. On more than one occasion we have ourselves directed particular attention to what should be provided in the interest of the art workman and the handicraftsman, who are not the least deserving of having proper examples in any form of construction placed before them.

All these objects spoken of would be most useful auxiliaries in the technical education of the Irish artist and craftsman. The monuments of existing ancient Celtic Art are still abundant throughout this country, and many of them are eminently worthy of being still utilised as examples and models for the production of the useful as well as the ornamental in art and handicraft.

CURRENT LITERATURE.

THE MAGAZINES.

Blackwood for this month has another hard article against the present administration, and among others a long review of the works of Percy Bysshe Shelly, the poet. The current tales in the publication are—"The Maid of Sker," and "A True Reformer."

Macmillan's Magazine has some readable articles. Professor Liebrich writes "Under Turner or Mulready," in which he unfolds a theory on certain faults of vision on painting. This article, which is novel, is entitled to the calm judgment of art critics. The professor is ophthalmic-surgeon and lecturer at St. Thomas's Hospital.

London Society contains a good amount of interesting material. Mr. James Greenwood gives us "Studies of Street Life." "Life's April," "The Great Boat Race," and the mysterious tale of the "Room in the Dragon Volant," are the names of other papers.

Cornhill Magazine for this month concludes "The Story of the Plebiscite," which has been a very vivacious one. A new story opens this month, entitled "Old Kensington." The French tale, "Le Ministre Malgré Lui," has

some very good hits on the prevailing vices of the age and court.

Belgevia still furnishes us with chapters of George Augustus Sala's "Imaginary London," and the continuation of the stories of editor and others—"To the Bitter End," and "Three to One." The dissertation on "All Fool's Day" will amuse sober folk as well as fools, if they are not in bad temper. If they are, the reading may make greater fools of them than they really are.

Cassell's Magazine contains, along with its serial tales, two brief poetical fragments of Thomas Moore, contributed, we believe, by John Francis Waller, not unknown in Dublin. The poems are somewhat in Moore's style, but are not of our national bard's happiest efforts. "The Stoker of the Megara" is the title of a poem by Gerald Massey, which tells hard, wholesome truths, with a certain metallic ring in them, but in phases not ordained even by poetical licence. There is a little lava and lightning in the verses, and a good deal of breakers. Mr. Hepworth Dixon discourses on the "Future War," in which there are certain ominous bodings. There is a war spirit abroad, and a distinctive uneasiness at home, which we all can see. Messrs. Cassell's several publications are in the main good, though we fear there are some of the editors and compilers attempting too much.

THE CORK DIOCESAN ARCHITECT.

AT the last general meeting of the Synod of the Irish Church, at Cork, the subject of the appointment of a Diocesan Architect for the United Diocese of Cork, Cloyne, and Ross, was brought before the council, when Mr. William H. Hill, B.E., architect, of 69 South Mall, Cork, was unanimously elected and duly appointed to fill this important office.

ART IN PARIS.

Two remarkable sales of pictures took place in Paris a few days since. The collection of the Duc de Persigny, announced to contain works by Raphael, Teniers, Wouvermans, Reynolds, Terburg, Van de Velde, Gainsborough, Velasquez, would, it was thought, bring very high prices; but whether it was from the want of cash, or a suspicion that M. de Persigny's art treasures were not all genuine, the prices were very low. The pictures, in London, supposing them to be what was represented, would in many cases have brought five times the sums they did.

The second sale of pictures were those by Henry Regnault, and though these brought far better prices than the former, yet it is rather disheartening to find at present the absence of appreciation for works of art in the French capital, as is evidenced by these two sales. The late calamities that have overtaken France must have dealt a heavy blow to real artists and copyists also, who are plentiful in Paris, and might formerly be seen in dozens copying in the Louvre. Many of these second-hand artists were so proficient that they produced fac-similes that would puzzle any but the greatest expert in the art. It is very pleasant, no doubt, to be able to procure an admirable copy equal, to all appearance, to the original, at a nominal sum. An "old master" is not, however, a duplicate, and no true lover of art would care to risk £50, not to speak of £500 or £1,000, for what might turn out after all but a copy of a copy.

At present nearly all the old pictures that hang on the walls of the Louvre are being replaced, and sight-seers and copying artists are again at work both at the Luxembourg and the Louvre.

There are not many original works at present in the hands of artists, and this fact is further evidenced by the small number of productions sent to the exhibition about to open next month. The number, it is said, is fully 2,000 fewer than in 1870.

The French are a recuperative people, and in art and manufactures they will, in a short while, exhibit their whilom activity.

NOTES ON THE ECCLESIASTICAL ARCHITECTURE OF IRELAND.

BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A. SCOT.

(Continued from page 94.)

THE ROMANESQUE PERIOD.

THE distinctive character of Irish ecclesiastical architecture is particularly noticeable in the church of Temple-na-Hue at Ardfert, County Kerry. Ardfert or, as it is named in old documents Ardart, or Ardert, was once a town of historic importance, and the seat of a bishopric; it is now dwindled to a miserable village, having nothing to attract a traveller's notice save the ruins of its ancient buildings. Some writers have supposed that Ert was the first bishop, as it is expressly stated that St. Brendan, when a youth, studied under Bishop Ert or Hert, in his native country of Kerry—(Harris's *Ware*, vol. i., p. 518); hence Ardert, the high place of Ert. In the Irish annals we find this locality almost invariably named Ardfert-Brendan, to distinguish it from Clonfert-Brendan. According to all ecclesiastical writers, St. Brendan of Clonfert and Ardfert are one and the same person. After having studied under Bishop Ert he left his native place and went into Connaught, where he subsequently founded a noble monastery at Clonfert, on the banks of the Shannon, about eight miles from Portumna; he is stated to have died, after an eventful life, at Annadown, in Galway, at the age of 94, on May 16th, A.D. 577; from him Brandon mountain in Kerry is named. Previous to his death he visited Brittany, staying some time with Gildas, who was then living in that country. It is recorded he there founded a church called Ailech, stated by Lanigan to have been the ancient Alectum, of which St. Maclovin was bishop; the see of which was subsequently removed to St. Malo. For other events in the life of this remarkable man consult Lanigan's *Ecc. Hist.*, and Colgan's *Act. Sanct.* For the bishops of Ardfert see Harris's edit. *Ware*. The architectural remains at Ardfert consist of the ancient Romanesque church of Temple-na-Hue, the cathedral, an edifice of the 13th century, but evidently built on the site of a more ancient church, a small portion of which is incorporated with the later work; a small 15th century church named Temple Griffin, but stated to have been erected by one of the Fitzmaurices of Lixnaw, probably for a mortuary chapel—the above form one group, all situated within the cemetery. In Mr. Crosby's demesne at Ardfert, a short distance from the cathedral, are the remains of a monastery founded in 1253 by Thomas Fitzmaurice, lord of Kerry, for Conventual Franciscans, which shall be hereafter described.

TEMPLE-NA-HUE

stands about thirty yards N.W. of the cathedral; it originally consisted of a nave and chancel; of the nave, the principal part of the walls are standing, though much dilapidated. It is in length 36 ft., in breadth 21 ft. 3 in., clear of walls, which are 17 ft. in height where perfect, 2 ft. 9 in. thick on the flanks, and 3 ft. 2 in. on the gables; hence this building could not have been stone-roofed. The masonry is of hammered rubble—stones of all sizes being used, but no spawls; the material principally limestone, with a few blocks of red sand stone. The quoins of the nave have the peculiarity of being finished with $\frac{3}{4}$ attached columns, which are elliptical on plan, the stones coursed, from 9 to 13 in. high, and tailing considerably into wall, right and left; the caps, three of which remain, are carved with human heads and interlaced work. Over these caps, on the gables, are projecting imposts, see fig. 4, pl.; along the flank walls, on a level with the top of caps, there is a string-course, consisting of a square and hollow, the latter enriched with a cone-shaped ornament of many sides, set close together, with grotesque heads under square blocks at intervals. The west gable is high-pitched; near the apex is a narrow semi-

circular-headed window-ope. The doorway was in this gable, semicircular-headed, of small dimensions, being but 2 ft. 10 in. wide, and 5 ft. 7 in. to the springing of arch. It is perfectly plain, with the exception of a square architrave 14 in. wide, which projects boldly, and has upon its outer edge a label moulding terminating in grotesque heads, and enriched with the conical ornament already described. The windows appear to have been four in number, if we are to judge by the breaches in the north and south walls; of these one only is perfect—it is at the eastern end of the south wall, while a portion of the jamb of another is to be seen in the north wall.

The perfect window-ope is but 9 in. wide, and 3 ft. high on the outside; internally it is splayed, both on jambs and sill, to such an extent as to be 2 ft. 3 in. wide, and 5 ft. 8 in. high. The arrises of the internal jambs are moulded, outside of which is an architrave enriched with square pateras in low relief, of different designs, separated by narrow panels ornamented with the pellet. Externally this window shews traces of ornamentation of a similar character, but much weather-worn and damaged. The chancel has disappeared, small portions of the wall remaining connected with the east gable. The chancel arch is much dilapidated, the jambs were square and plain, supporting three orders of arches, all enriched with carving; the two outer rings are partially preserved, and exhibit ornament of a peculiar character. The imposts consist of a square and chamfer—the square enriched with an ornament which I can scarce describe, but which can be understood by fig. 1, pl.; the chamfer has the same enrichment as the door label. The two external rings of the chancel arch are enriched with mouldings and sculptured details, both on faces and soffets, in low relief, of a curious but pleasing character. These enrichments do not spring directly from the imposts, the rings being plain for a height of about 2½ ft. above them.

The architectural student cannot fail with being struck by the singularity of the style of this curious little edifice—so different from what he has been accustomed to meet in buildings of a similar age in other countries. The quoin shafts, the impost termination of the barges, the enriched eave-string, the peculiar ornamentation of the window and chancel arch, are all features not to be met with in the Norman architecture of France or England as far as I have been able to inquire, and must, therefore, have been derived from other sources, if not the result of native design. The quoin shafts are a feature peculiar to a class of churches in this country which seem to be of nearly one age. I have met them at Clonfert, Tomgraney, and Monaincha. Fergusson shows this feature on the angles of the octagonal apse of the church at Alet—the only example I know of. In this instance, however, they are used in the upper storey, are of classical proportions, and support a cornice of classical design—(*Hand-book of Archt.*, p. 603). I made a set of measured drawings of this building in 1849. At that time it was in fair preservation, the doorway was nearly perfect, as also the quoin shafts. The window in the west gable was also perfect; since then, I regret to say it has suffered wanton injury. The courses of the shafts have been pulled out on the western quoins; most of the hood moulding of the door has been removed, and the window in the west gable has disappeared, leaving an unsightly breach, while the gaps in the flank walls have increased. An expenditure of forty or fifty pounds, at the period I speak of, in pinning the walls and restoring a few bits of the ornamental work then missing, would have preserved this interesting structure for many years to come; but though there were clergy of all denominations and wealthy land-holders in the locality, none had the taste or patriotism to put forth a hand to save this monument of the taste and piety of a remote age from ruin, or even to prevent the ignorant peasantry from detaching the quoins and ornamental stones to place them

over the graves of their recently interred friends—a common custom in Ireland, that has caused the dilapidation of her ancient buildings more than the cannon of Cromwell, or the fanaticism of his soldiery. Mr. Arthur Hill, architect, of Cork, has published a set of drawings of this church, with three photographic views. The drawings are faithfully and carefully executed, and the photographs are all that can be desired. The details on plate are reduced from Mr. Hill's plates.

Fig. 1.—Elevation of impost of pier, and portion of chancel arch.

- 2.—Section of chancel arch.
- 3.—Ornament of impost enlarged.
- 4.—Angle column shewing cap, &c.
- 5.—Portion of inside window jamb.
- 6.—Section of entrance door-head.

Unfortunately we have no record of the erection of this edifice. That in its day it was the principal church of Ardfert there can be no question, from the care bestowed on its construction and its ornamental details. Its age may be approximately surmised by the fact that it was succeeded by another Romanesque church which, in its turn, gave way to the thirteenth century cathedral, the walls of which are still standing, and shew at the western end an incorporation of a portion of a more ancient edifice, which stood partially on the same site. Thus we find in the N. W. corner of the present building a Romanesque doorway, with some remains of arcading at each side. From this we would infer, that the church, now called Temple-na-Hue, being found too small, a large church was erected on the site of the present cathedral in a later development of the Romanesque. This, in its turn, being found inadequate to the wants of the diocese, made room for the present building. Yet with that reverence with which ancient churches were then regarded, and which I have seen exhibited in many similar instances, they incorporated a feature of the loved old church in the new edifice, even at the risk of injuring the symmetry of the latter.

Our historical notices of Ardfert are few. We find the following in the *Annals of the Four Masters*:—At A.D. 1089, the burning of Ard-fearta. At A.D. 1179, the burning of Ardfert-Brendan. There are many notices of the deaths of distinguished ecclesiastics connected with this place; but nothing that throws any light upon the erection of the buildings, the monastery alone excepted.

RATHAIN.

This church is situated in the King's County, about three miles west of Tullamore, in the parish of the same name. It is still used for the worship of the Protestant Episcopal Church. The nave presents no feature of interest, but the chancel claims our particular attention. It is a small stone-roofed structure with an over-croft, and appears to have undergone some alterations. The original east window is gone; but the chancel arch, which appears to be an addition when the nave was added, is a feature of much interest. The jambs shew three piers on each side, the angles of which are rounded into slender shafts. These piers have highly enriched capitals composed of human heads, the hair flowing in interlacements, and covering the bells of the caps. The abacus is bold and effective, and enriched with line of small pellets, and a sort of ball-flower ornament under its projection. The angle shafts have curious bases of a bulbous form.

The piers support three plain semicircular rings of finely-worked masonry without any ornament. The enrichments of this interesting feature are faithfully delineated by Dr. Petrie (*Round Towers*, p. 240), who has happily preserved in his accurate drawing the grave and quaint expression of the carved heads, which, despite of their worn and injured state, exhibit no mean skill in their sculptors. Dr. Petrie classes the carving on these capitals with that on the caps of the doorway of Timahoe Round Tower. The former are, however, more chaste and beautiful in design, and of better workmanship, preserving the distinguishing characteristics of the Irish

type of Romanesque. But by far the most interesting feature in this church is a circular window in the gable, which lit the overcroft. It is 7½ ft. in diameter out and out of its ornamental frame. The external ring is a flat band enriched with pellets set close together; within this is a broad band with three lines of chevrons, incised, each line enriched with small pellets. The triangular spaces formed by the external line are filled with knot-work and a sort of suckle ornament. The inner edge shews the indented chevron, each indent enriched with a pellet. The window proper consists but of four circular orifices about 9 in. diameter, each set in the angles of a square. The object of this rare feature was certainly ornament and not light, and no man of cultivated taste can look at it without admiring the inventive genius and chaste fancy that could invest so simple an object with such a garniture of pure architectural ornament at once beautiful and appropriate. Surely those who have charged the Irish race of the period preceding the Norman Conquest with barbarism and ignorance of all art, have done them gross injustice, and exhibited their own lamentable ignorance of the history and monuments of the people whom they thus maligned. This window has been most accurately illustrated in *Round Towers*, p. 241, the author of which has assigned the erection of this church to the middle of the eighth century, but without giving any authority. A church was founded here towards the end of the sixth century by St. Carthach, sometimes named Mochuda, who was afterwards the first bishop of Lismore. His connection with Rathain appears to have ceased in A.D. 630, as about that time he and his brethren were expelled from the monastery by the prince of that district, Blathmac, son of Aedh Slaine, monarch of Ireland. From that period the Irish annals are silent until A.D. 758, when the *Four Masters* record the obit of "Fidhairle Ua Sunaigh, Abbot of Rathain." To this eminent personage Dr. Petrie seems disposed to attribute the erection of the church I have been describing; but, as I have before stated, without any authority. The ornamental details of this edifice, though of an early Romanesque type, cannot date, certainly, before the commencement of the eleventh century.

There are two smaller churches at Rathain in a state of ruin. One of them is remarkable for a very chaste and beautiful doorway of small size, the jambs of which are inclined and enriched with a shaft at each side, having capitals of symmetric design, the bells being fluted as in many Norman examples, and the abaci bold and effective. The lower member of the semicircular head is most effectively carved into an indented chevron on the angle, the triangular spaces of which, both on the face and soffit, are filled with enrichments. The arch is crowned by a boldly-moulded label terminating in those curious reptile heads, half snake, half dog, so often met with in Irish sculpture and illuminations. This doorway has all the characteristics of twelfth century design. It is illustrated in *Round Towers*, p. 244. Dr. Petrie gives its dimensions as 2 ft. 9 in. wide at bottom, 2 ft. 6 in. at top, and 5 ft. 4 in. to the springing of arch. The bases are moulded and one of them has a serpent twining round the mouldings.

THE TEMPLE OF DIANA OF THE EPHESIANS.

We suppose by this time there are but few who, even possessing a smattering of architectural knowledge, are unacquainted with the history of the celebrated Temple of Diana at Ephesus, once a famous city of Asia Minor, but long in ruins.

For the information of those who perchance may not have heard, or if once reading may not have remembered, we may simply state that the temple was considered one of the "Seven Wonders of the World." Its dimensions, according to some accounts, were 425 ft. long and 200 broad. The roof was supported by 127 columns 60 ft. high, and were placed there by so many kings. Thirty-six

of these columns were carved in the most elaborate and beautiful manner. The temple was not completely finished until 220 years after its first commencement. One Ctesiphon was the principal architect. The riches contained in this celebrated temple were accounted something fabulous, and though burned down on the birthnight of Alexander, it was afterwards erected and became once more as magnificent as ever. Its first destruction was owing to the act of Eratosthratus, who, unknown to fame, otherwise succeeded in his desire of transmitting his name to the latest posterity by burning the temple down.

For some time past great interest has been manifested by archaeologists, antiquarians, and architects respecting the exact site and ruins of this celebrated temple, and examinations and excavations have been made with some success. Progress has already been reported by some of our architectural contemporaries across the channel, and also by correspondents of the daily journals. Mr. J. J. Wood, who is at present engaged in excavations in search of the ruins, writes from Ephesus on the 19th of last month, and furnishes a very interesting description which we summarise. After much labour, extending over several years, he procured a key to the site of the temple from an inscription discovered in the ruins of the theatre of Ephesus, which mentioned the "Magnesian Gate" as that through which processions used to pass to the temple. "Having (he says) previously found the Magnesian Gate, I determined to seek for the road which led thence to the temple, and opening up the ground near the gate and the road leading outward, I found that at some little distance from the gate it branched off in two opposite directions—one towards Magnesia ad Meandrum, and the other round Mount Coressus (incorrectly called 'Prion,' 'Pion,' &c.) towards Ayasalouk. The latter road was paved with thick blocks of marble from the neighbouring quarries, and the double line of chariot ruts, worn to the depth of five or six inches, made me feel certain that I was now fairly on my way to the temple; but I had to follow this well-worn road, which was in some places as much as 14 ft. below the present surface of the ground, for the distance of 3,200 ft. before I found the road which I especially sought for, striking out at right angles towards the temple. It was at this point, probably, that the portico of Damianus, alluded to by Philostratus in his 'Lives of the Sophists,' really commenced. At the time I found this road a disheartening difficulty presented itself. We were then in the month of April, and the fields at Ephesus had been sown that year with barley, which was not quite ready for the reaper. I therefore made a dash for the Peribolus wall of the temple, to a spot where I had previously made some efforts to discover a wall. Putting on a sufficient gang of workmen, I soon found a thick wall built of rough blocks of marble, which ultimately proved to be indeed the Peribolus wall enclosing the Artemisium and Augusteum, with their adjacent buildings and belongings. The distance from the point where I found the road leading away from the mountain to the angle of the Peribolus wall, is 2,000 ft. I traced the Peribolus wall for a considerable distance before the close of that season (1868-69). In December of the year 1869 I found the Greek pavement, which I reported to the trustees of the British Museum as probably that of the temple itself, and which, indeed, it proved to be; but it was nearly twenty feet under ground, and it took a long time to open up an area sufficiently extensive to discover some of the fragments of the building, which were scattered far and wide. Eventually, however, a long line of drums of a column which had fallen athwart a wall and had been allowed to remain as they fell, together with the happy discovery of a base *in situ*, surmounted by the lowermost drum of the column to which it belonged, fully proved that the Temple of Diana had been found. Since then several capitals and many architectural fragments of the building have been found, and, above all, portions of the

sculptured drums of the columns described by Pliny, which will now soon be safely housed in the British Museum. I am now proceeding to open up the whole of the site, and hope to find many more interesting remains of that Temple of Diana at Ephesus which was built in the time of Alexander the Great."

We trust Mr. Wood will be further rewarded with valuable "finds," architectural and otherwise, for his labours are entitled to deserved reward and success.

THE BUILDING AND ORNAMENTAL STONES OF IRELAND.

We are pleased to see an announcement that the Messrs. Macmillan and Co. have at present in the press "A Treatise on the Building and Ornamental Stones of Great Britain and Foreign Countries." The work is by Professor Hall, Director of the Geological Survey of Ireland, and Professor of Geology in the Royal College of Science in Dublin. The *IRISH BUILDER* has often and often directed attention to the matter as far as it related to Ireland, and more than one paper has been specially devoted to the subject by our co-labourer, "Dubliniensis."

The work, we have little doubt, of Professor Hall will be most useful; but Ireland, treated singly, would furnish sufficient matter for a goodly-sized volume.

There are scarcely any descriptions of useful building stones which this country does not furnish, in some one or other district of the island. Various freestones, limestones, sandstones, granites, calp, marble, iron stones, crystals, basanite or touchstone flints, porphyry, millstones, slate, spars, bastard gems, and various petrifications besides. Of marbles, as well as freestone, we have in the country a great variety. Of the former we have many of beautiful colours and shades, and of the latter, of different degrees of hardness or softness.

Then, in the matter of painting earths, there are ochres, red, brown, yellow, and black, in the one county of Dublin. Of clays we have a great variety also, suited for red and white bricks, pan-tiles, house-tiles, earthenware, pottery. Gypsum, too, is plentiful in Ireland, and was used extensively in the last century in stucco-work, and for scouring silver. Then we have various sands, and limestone gravels, casting-sand, moulding-sand, building-sand, &c.

In whatever chapter or chapters that may be devoted to Ireland, if Professor Hall will fully carry out the arrangement according to the geological distribution, as well as the mineral characters of the stones, we will indeed have reason to feel thankful. Also, if we are given copious illustrations of their application to building and other wants in ancient as well as in modern time, the value of such a work will be much enhanced.

In some of the old buildings of this city the name of the quarry could be read in the appearance and character of the stones. The old and experienced mason or quarryman could tell you Dalkey or Ballyknocken granite from any other by its look. The same with the acute marble mason; he would know the *skin* and *feel* of a bit of Galway marble from Kilkenny or Killaloe, or English and Italian from Irish.

The nature and strength of building stones, or their durable qualities, are not generally known by even the working mason to the extent they should. Stones are often placed on a bed the reverse of the situation they occupied in the quarry, and consequently when the atmosphere and time work their influence upon them, they chip away in flakes or crumble into dust.

No knowledge is more indispensable to the workman than a knowledge of the strength and qualities of building materials. This knowledge also should be known by builders and their foremen—if it was, both would obtain more credit by their work. It is possible to build two structures with similar materials, and yet one in a few years would

show signs of decay while the other would remain intact. Good building-stone with a bad bedding and a bad bond will soon show bad effects. Bad building-stone with bad bedding, bond, and bad workmanship, of course, is the *ne plus ultra* of bad building.

Returning—we repeat that we will be very much pleased indeed on the appearance of the work of Professor Hall, even though it should fall far short of our anticipations. It cannot be otherwise than a most useful and instructive work.

THE ROYAL IRISH ACADEMY.*

THE last annual report of the Royal Irish Academy evidences, on the part of that historic body, an increase of activity and usefulness, and a disposition to strive harder, even though success should not invariably crown its efforts. The "Transactions" are in the press, and will shortly be issued. The subjects are mostly of an interesting nature:—"On Muscular Anomalies in Human Anatomy," by Professor Macalister; "Account of Experiments on the Retardation expressed by Vortex Rings of Air when moving through the Air," by Professor R. S. Ball; "A Geometrical Study of the Kinematics, Equilibrium, and Small Oscillations of a Rigid Body," by Professor Ball; "On an Ancient Chalice and Brooch lately found at Ardagh, in the County Limerick," by the late Earl of Dunraven; "On the Felire of Oengus," by Whitley Stokes, LL.D.

In relation to its internal arrangements the Academy have made, and are making, some improvements, which will be acceptable to visitors and the public generally. A transfer of the collections of Antiquities to their new places in the Long Room is proceeding, the original classification being preserved. The Stone collection is being re-arranged, and progress is making with the deposits of objects of wood and clay. Some new presses have been provided to accommodate an increase of objects.

The Ardagh Chalice and Brooch have been returned by the Council to the parties authorised to receive them; and we join in the hope that they may yet be acquired for the permanent use and custody of the Academy.

A Reliquary, the property of the Right Hon. William Monsell, has been returned to that gentleman at his request.

In respect to the important object, "The Bell and Bell-shrine of St. Patrick," belonging to Dr. Todd—it has at last been acquired at the reduced price of £500. A portion of the purchase-money is paid, and the Government will complete the purchase. In reply for assistance to complete other necessary work, the Academy has failed to obtain at present any assistance from the Government. We think that the Government are justly called upon by the Academy to assist it in meeting the additional expenses which must be incurred in fully opening the Museum to the public, as also to enable the Academy to publish materials in connection with Irish manuscripts. The Academy hopes to acquire the valuable collection of Irish coins belonging to Dr. Aquila Smith, offered for the sum of £350. There should be an energetic push made to obtain them, along with several other objects known to exist, and which would be a great loss to this country if they were allowed to pass away into foreign collections.

We are glad to see that a notice to finders of antiquities has been extensively circulated throughout the kingdom, and translations in the vernacular printed for the use of Irish-speaking districts. We are also pleased to find that arrangements for keeping the reading-room and library open till 5.30 p.m. has been continued, thus affording facilities for consulting rare and useful works. The cataloguing of Irish manuscripts proceeds.

The Academy is to be congratulated on the progress made in the copying and collation of that most interesting MS. *Leabhar Breac*, the labours of Mr. O'Looney and Mr. O'Lon-

gan. One-half of the work will soon be in the hands of the subscribers. The work contains much that is interesting relating to early Christian history and cognate subjects.

The *Felire of Oengus Celé Dé* by Mr. Whitley Stokes, in his triple text, is now in course of printing, and is a most important contribution to the study of Irish Archaeology and language. A complete translation of *Leabhar-na-h-Uidhri*, by Mr. O'Looney, is also finished, and is placed in the hands of the Academy for publication.

We find from the report that the Academy lost a good many useful members, through death, during the preceding year, and that several societies in Europe and America have been added to the list of learned bodies who exchange Transactions.

We notice—that we have also long considered necessary—that several changes are about to take place in the bye-laws, and that a committee has been appointed to prepare a draft of a revised edition.

Out of the sum annually placed at the disposal of the Academy for the assistance of scientific researches, involving expenditure for instruments and materials, several sums have been distributed to the gentlemen whose labours have been already recorded in our pages and elsewhere.

In the report there is just tribute paid to the memory of the late Earl of Dunraven, and a short sketch is given of his career and labours in connection with the Academy. From this sketch we learn that the late earl was engaged for some years before his death in preparing materials for the completion of Dr. Petrie's "History of the Ancient Ecclesiastical Architecture of Ireland," and that he personally visited all the principal ruins, had photographs taken and ground plans made with measurements and descriptive notes, and finally that he made provision in his will for the publication of these photographs, which will supply a series of invaluable illustrations of Irish Architecture from its earliest period down to the Norman Invasion.

There is a great sphere of usefulness and honour in the circle of the Academy's labours, and if its members, one and all, set themselves to work, and not be content with mere honorary membership, a bright future is before it. There are many active and loving labourers in the Academy, but there are many also whose services are *nil*, financially as well as mentally. These ought to make amends for past neglect, and if they have not wealth of mind, let them assist with their pocket their brethren who can work and who are willing to work, but who cannot be expected to wear out their lives without either sympathy or assistance.

We are much better pleased with this last report of the Academy's labours and arrangements as to the future than any of the preceding reports for some time back, and we will always be found to give honour where honour is due.

BOOKS RECEIVED.

Remarks in connection with a Proposal for Extending the Railway Accommodation of Dublin, with a Map and Sections. By William Lalor, C.E. Dublin: M'Glashan and Gill.

Mr. Lalor proposes a very feasible scheme, with some drawbacks, for the future railway accommodation of Dublin. We consider it in advance of Mr. Barry's Central scheme, by which the central station would be situated in the heart of the city, perched like an ungainly monster on an arch over the Liffey between Carlisle and Essex bridges, to exist as an architectural monstrosity, a disfigurement and a dishonour to the city that would allow it to be erected.

Messrs. Cawley and Newton's scheme is open to great objection, and indeed so are all the schemes, though we consider in many respects Mr. Lalor's is the best in its connecting plan and design.

We are strongly impressed with the opinion that none of the engineers have looked far enough into the future of this metropolis

in planning their several schemes. Dublin in fifty years time will not be the Dublin of to-day, and the engineer should look forward, if possible, with a prophetic eye. We all know what an increase was made in town and suburban extension on the south side of Dublin within the last quarter of a century, and we ought to hesitate even in adopting a central system, to enclose it within such circumscribed limits as the supposed present wants of the city would apparently demand.

Is it not possible to accommodate the steam navigation to either side of the quays without converging all the lines of railway to the North Wall, as if it was impossible the North Wall should be the end and aim of all our traffic for ever?

The several lines of railway could connect themselves far outside the limits of the city, and as the city will extend, in some years, these junctions or stations will not be what they would be at present. We have known lines and junctions to be made on several English railways at places where there was scarcely a house, yet in two or three years a new town sprung up. It would be found similar, though not to the same extent, here after some years.

With several connecting lines that would carry the citizens out north, east, south, and west, a few miles for a few pence, a great number of the town-living folk would betake themselves to suburban neighbourhoods, where rents would be moderate and health obtained.

If railway directors would not look too much to the present for gain, they would doubly profit in the lapse of a few years by giving a broader basis to their various railway schemes. Connected with these Dublin schemes we see much evil as well as some good.

Though advocates for railway extension and accommodation, we are opponents to railway muddle, and we would wish to avoid crowded confusion and the consequent cutting up of the thoroughfares of Dublin on all sides, to satisfy the various whims of various companies.

We ought to avoid destroying our city, as far as it is possible, by establishing lines to pass through the heart of the city. London has already been cut up to a dangerous extent, and several of the finest views in the metropolis spoiled by railway arches and bridges of brick and iron.

An underground railway for the future Dublin is quite possible, and we believe would be serviceable, and a complete underground system through the city for passenger traffic connecting with the several lines outside the metropolis, will be the work of a future and perhaps not far distant day.

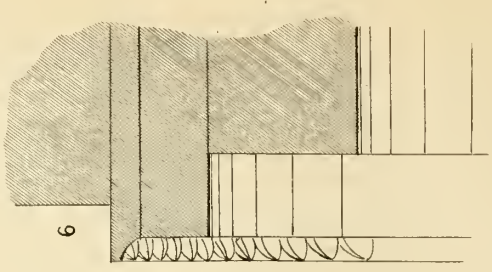
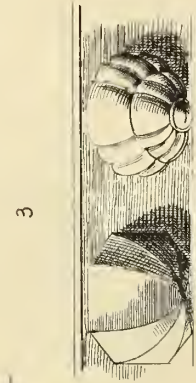
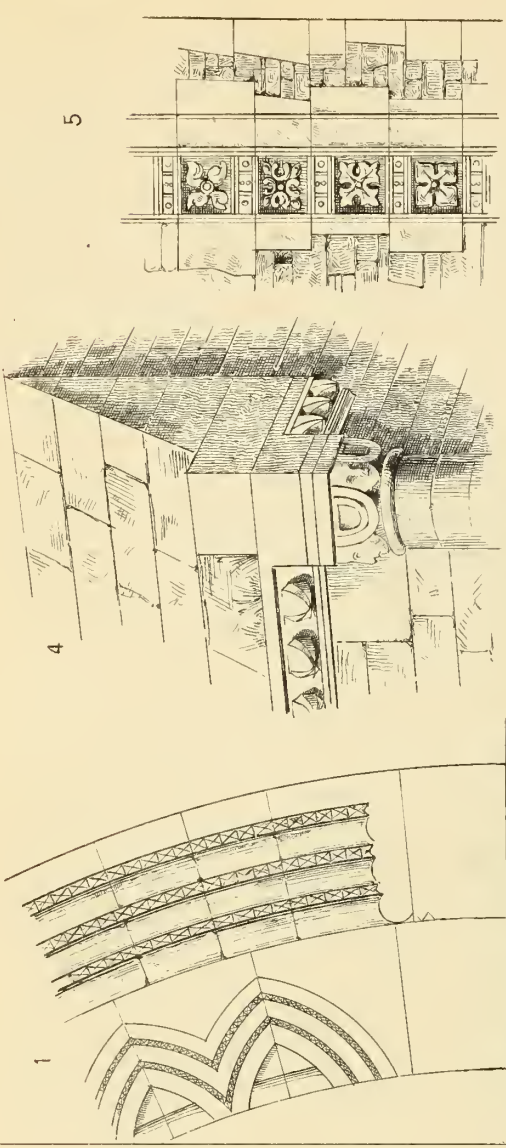
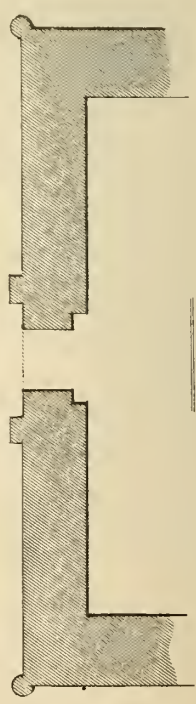
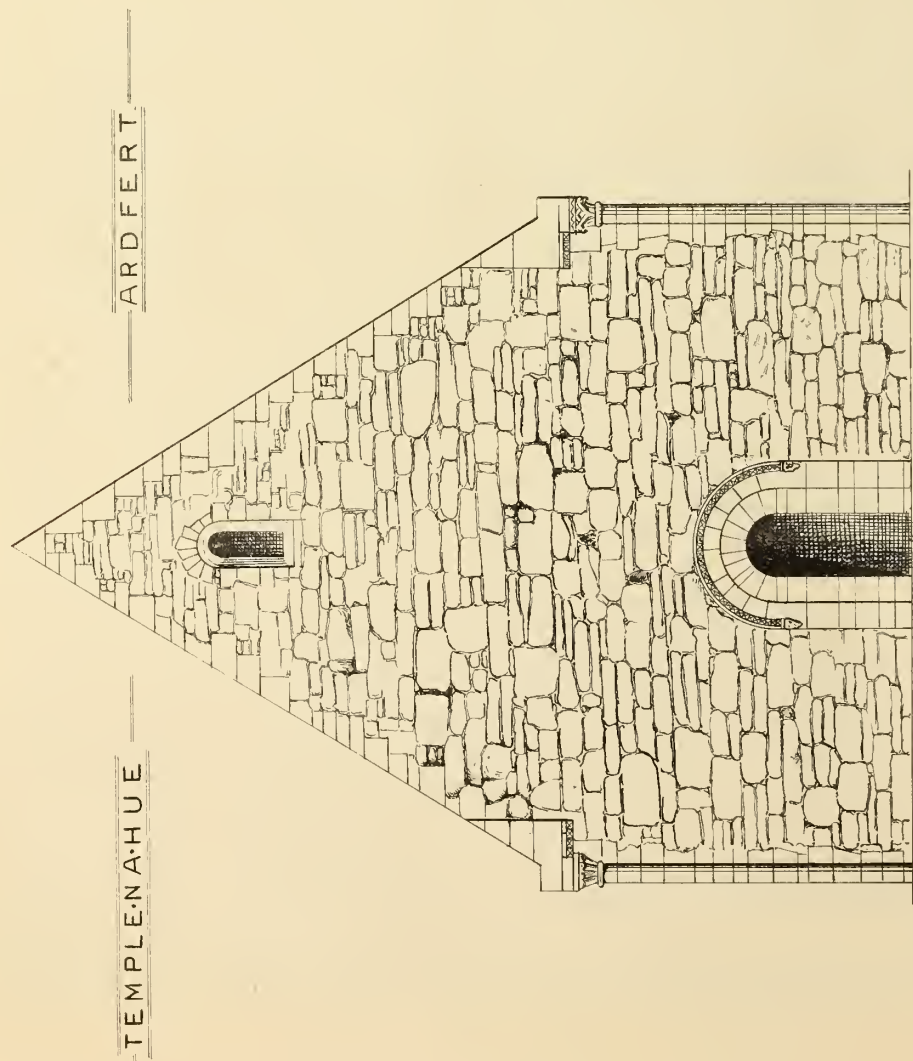
Mr. Lalor's scheme is, as we said before, feasible, and possesses merits above others already before the public. Before any scheme is definitely pronounced upon, Mr. Lalor's ought to be considerably weighed. We can see a good deal of reason and merit in the circular scheme, despite some obvious objections. The city would not be so much quartered and cut up, but rival railway interests seldom rest content where any advantage is supposed to exist on the one side. Hence, with many schemes there is much trouble, and he is a happy and clever engineer indeed, who is enabled to effect connections and junctions that will please all parties.

The Mining Magazine and Review. London: Henry S. King, 65, Cornhill.

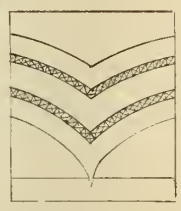
THIS magazine continues to uphold its first promise. Nos. 3 and 4 contain many excellent articles in relation to mining, the extracting of metals, iron-ores, mining laws, steam-boiler inspections, and several current topics. In the "Current Topics" for March there is a very excellent notice of the Federal Polytechnic School at Zurich, showing its admirable organization for the imparting of a sound technical education. We will make use of this paper on a future occasion. We have often preached in this journal the value and use of technical education to our artisans,

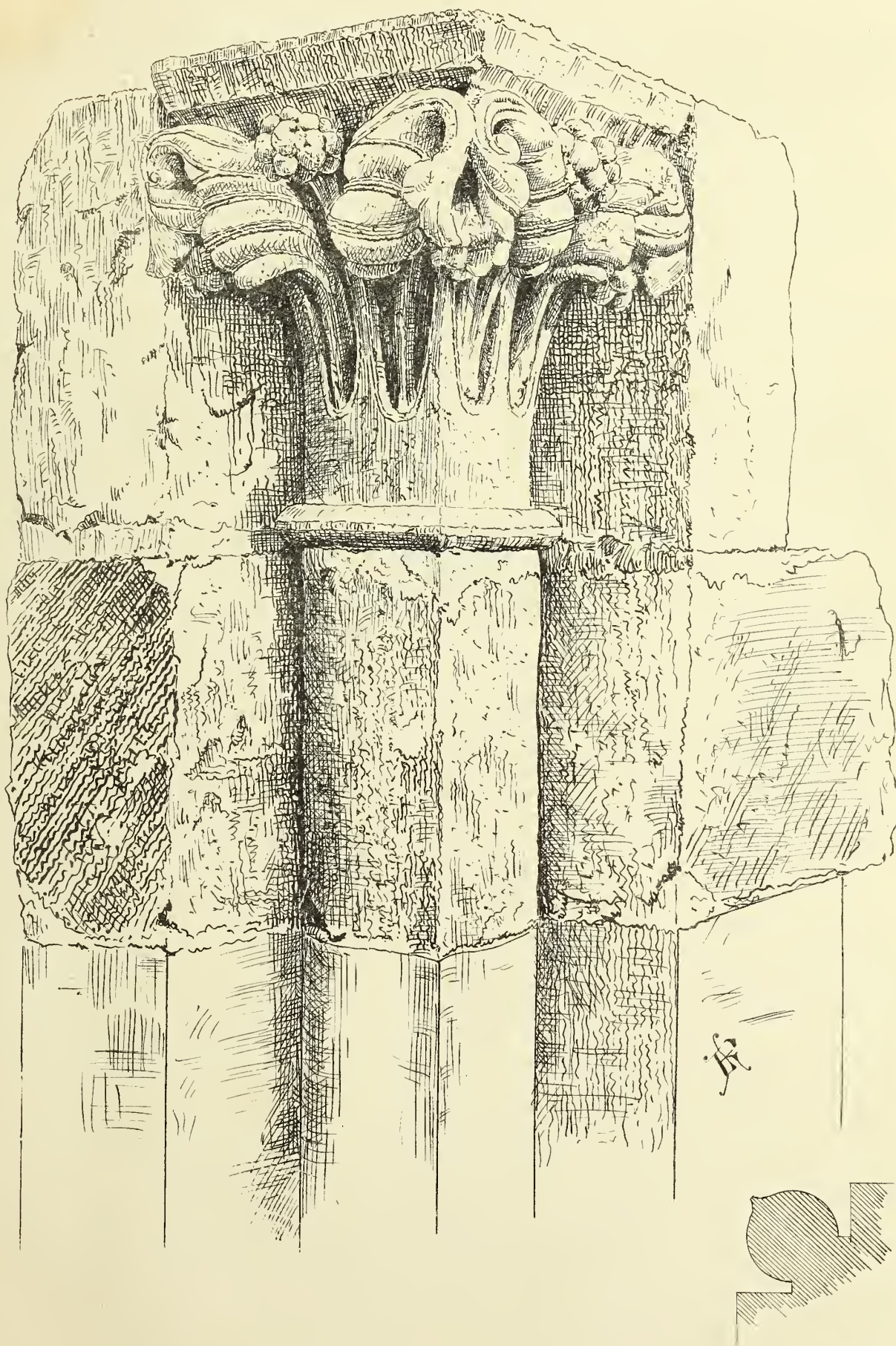
* Report of the Council of the Royal Irish Academy for the year ending March 16, 1872. Dublin: printed by M. H. Gill. 1872.

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and to all persons connected with avocations in which a knowledge of architecture, civil engineering, mechanics, chemistry, forestry, agriculture, and natural and mathematical science, is requisite.

In the number for April there is a short but very capital article full of useful advice, on "Waste of Coal in Households." The article is also very suggestive, and hints at things of which we have had some experience.

The *Mining Magazine* may be said to have succeeded in establishing its reputation, and of giving proof of its capacity to please, and consequently to claim public support.

Journal of the Royal Historical and Archaeological Association of Ireland. Part for October, 1871.

BESIDES a report of proceedings, this part contains "Remarks on the Exploration of a Pre-historic Carn, near Trillick, County Tyrone," by Mr. Wakeman, and a continuation of "Unpublished Geraldine Documents," edited by the Rev. James Graves, M.R.I.A., both of which are highly interesting papers.

Drawing for Bricklayers, containing the Constructive Principles of Brickwork, and the Method of Drawing each Subject, together with the Elements of Freehand, Object, and Plan Drawing. London: Cassell, Petter, and Galpin.

We can only acknowledge the receipt of this very useful handbook in our present issue. A review of it will appear in our next.

SANITARY MATTERS IN THE CITY AND PROVINCES.

THE public meeting held for the purpose of organising hospital accommodation for fever and small-pox cases, and of other matters in conjunction, we have found it necessary to treat of elsewhere in our columns. Prosecutions are still taking place north and south of the Liffey for milk adulteration, and for selling diseased meat. If the Corporation are really intent on pushing on the work of hospital accommodation, it will afford no excuse at the same time for neglecting to cleanse the city. The dry weather is allowed to harden the mud; and when we are not spattered with gutter, we are sure to be blinded with dust. Then come the water-carts, sometimes in number and sometimes not at all, to convert the hardened mud back into original gutter. All this annoyance comes because the Corporation shirk their duty, and allow the elements to do duty for them.

In the Southern Divisional Court, the following persons were summoned by Thomas O'Connor, on behalf of the Corporation, for selling milk adulterated with water:—

John Cummings, 41 Essex-street, West, 100 per cent. of adulteration with water.

Catherine Reilly, 36 Castle-street, 30 per cent.

Thomas Rourke, Winetavern-street, 20 per cent.

Patrick Jones, 83 Townsend-street, 20 per cent.

Anne Duffy, 53 Power's-court, 40 per cent.

In each case Mr. Ennis appeared for the Corporation, and certificates were handed in from Dr. Cameron as to the extent of adulteration.

At the conclusion of the hearing of the case, his worship said that those brought before him to day differed very favourably from which had been heard the last day, inasmuch as the percentage of adulteration now showed that three of these persons had only added 20 per cent. of water. Most of the people the last day were very poor, and, in general, were simply sellers of milk, and not the owners of cows. He, therefore, made a distinction in the imposition of the fines on that occasion, and this distinction was apparently misunderstood by some people; but the view he took of the matter was that the amount of a fine should always be regulated by the degree of culpability for which the fine was to be imposed. Now he regarded a wealthy dairyman who adulterated milk with 30 per cent. of water as more culpable than a

miserable huckster who sold milk adulterated with 60 per cent. of water, the great bulk of which had probably been added before it came into his possession. In the cases of Thomas Rourke and Patrick Jones he would now impose a fine of 40s. and 40s. costs. In the case of Catherine Reilly there were mitigating circumstances, such as he alluded to already, and he would not, therefore, increase the penalty upon her, although the percentage of water, was 30 per cent., as compared with 20 per cent. introduced by Rourke and Jones. In the case of Anne Duffy he would impose a fine of 40s. and 60s. costs, as the defendant was the owner of a number of cows. Cummings—the proprietor of 14 cows, a prosperous dairyman, who, he thought, there was no doubt, owed much of his prosperity to practices not for very creditable, for, although he owned 14 cows, he took care to charge the public for the milk of 23 cows—he should fine £5, and £5 costs.

In the Northern Divisional Court, a man named Edward Toole, 24 Charles-street, was fined £5, and £1 costs, for selling milk adulterated with 120 per cent. of water. Joseph Whately, 32 Bolton-street, was fined £5, and £1 costs, for selling milk adulterated with 50 per cent. of water, this being the second conviction.

It is hard to say which is the greater criminal—the owner of the cows, or the sub-seller. There is hardly a toss of a pin between them. If imprisonment is not supplemented to fine, the swindle will not be stamped out. Bakers, butchers, porkmen, coal-dealers, and medical quacks, ought to be all treated alike, and brought up to receive the "Barry Brand," but the hot iron ought to be used in addition.

In Blackrock and Kingstown matters are fairly satisfactory. In the former township an hospital cab is about to be provided. In financial matters there are discrepancies to the extent of some £400 in the accounts, owing, we believe, to a defaulting secretary. There ought to be a clear audit, so that there may be no other mistakes not attributable to the secretary.

In Drogheda we think there is a great plethora of talk lately and very little action. Some members in the council are making themselves look ridiculous by their puerile objections and suggestions when any practical work is really proposed to be done. A good many folk think they understand building matters and engineering matters as well as the architects or engineers themselves, the sum total of whose information may be in the fact that these same people have built one or two mud houses in their lifetime. We can commiserate the borough engineers and town surveyors who are expected to listen to these persons even if they are remiss themselves. The borough accounts have been published.

Both in Cork and Belfast activity has been lately displayed in cleansing operations and seeing to a proper water supply.

Some midland and western towns are still in a state of sanitary destitution; but if their local authorities do not soon bestir themselves, the power will be taken out of their hands.

CORRUPT PRACTICES AT MUNICIPAL ELECTIONS.

A BILL is at present before Parliament for the better prevention of corrupt practices at municipal elections, and for establishing a tribunal for the trial of the validity of Irish elections. The bill has been introduced by Mr. Henry James, Q.C., one of the members who represent Taunton, in Somersetshire. The first point of the bill deals with corrupt practice at municipal elections, and for the purposes of the act "the offences of bribery, treating, undue influences, and personation" are to be deemed corrupt practices. The specified offences are to include "anything committed or done before, at, or after, or with respect to an election, which, if done in respect to a parliamentary election would constitute a breach of the law."

The several clauses of the bill embrace a great many acts that will be deemed corrupt.

If a charge of corruption is brought home to the candidate, or one of his agents (with or without the candidate's knowledge), the election of such a candidate shall be void, and he shall be incapable of holding any municipal office in that borough during the term which he would have served. Another clause lays down that an election for a borough or a ward of it shall be wholly voided by general corruption.

The eighth clause embraces a most important part in the measure. The employment of a *paid canvasser* is forbidden under a liability to a penalty of £10 upon the retained or a retainer, and the same fine may be imposed upon such paid agent for voting at the election. No room at a public house is to be used, with or without pay, for the purposes of such election, under a similar penalty; and a fine of £5 may be inflicted upon a candidate or agent, for paying money in respect of the conveyance of voters to or from the poll. The costs of the prosecutor and witnesses against the corrupter are to be borne by the convicted person, unless the court orders otherwise; and the Clerk of the Peace of a county is to prosecute, or sue, if so directed by an election court.

Throughout the bill the most stringent provisions are provided to cover all modes of trickery and deception. The second part of the bill enters into details of the working of election petitions.

In the miscellaneous provisions of the bill, power is given to the Court to certify for the expenses incurred for the trial, the payment of these by the treasury, and the repayment to the treasury by the borough fund. No witness who has voted at the election by ballot, shall be compelled to state the party for whom he voted. With some modifications, the act is to apply to Ireland and Scotland, and the measure repeals 5 & 6 William IV., c. 76, ss. 54-6; 22 Vic., c. 35, ss. 9-14; 3 & 4 Vic., c. 108, ss. 90-1.

Dublin and other cities and towns we wot of, will be benefited by the passing of this measure, which we hope will soon become law. We do not anticipate any great opposition to the measure. Many of the ward elections of this city we have known to have been carried by all sorts of influences—any number of well-paid canvassers. Public houses, too, have been used, and no stint of whiskey to warm the hearts of half-hearted voters. What do the Cork-hill gentlemen say to this?

The passing of this measure may give us more useful councilmen, and stop the action of the moral feculency and dry-rot that has been long eating away all that was honest in the deformed "Reformed Corporation" of Dublin.

OBITUARY.

MR. W. F. CALDBECK, F.R.I.A.I.

It is with the deepest feelings of regret we have to record the sudden death of the above respected and valued member of the architectural profession, which took place at his town residence, 24 Harcourt-street, on Friday night, the 29th ult.

Mr. Caldbeck was long and favourably known to the public as an eminent and skilful architect, and enjoyed an extensive practice throughout Ireland, where many of his works bear testimony of his taste and judgment. His kind and genial manner to all with whom he came in contact, together with his high sense of honour, endeared him to and made him respected by all who had the pleasure of his acquaintance, or entrusted him with their business. Mr. Caldbeck was a pupil of the late eminent architect, Mr. W. Deane Butler, and succeeded him in many of his important works.

There is one consolation to his many friends, that he has left his family—whom he dearly and affectionately loved—perfectly independent, but they nevertheless mourn his loss with the most heartfelt regret, and feel that time alone and a kind Providence can sustain them in the grief they feel for being deprived of a fond husband and a devoted father.

NOTES ON EARLY GARDENING IN IRELAND.

SECOND PART.

THERE is but scant evidence in the annals of this country of any particular attention being paid to gardening operations, except in a very limited way, previous to the seventeenth century. We are justified, however, in collecting every waif and stray of a reliable character in proof of the existence of gardening, or the cultivation of flowers, trees, and plants either in connection with buildings or apart from them. In Sir John Harrington's, report to Queen Elizabeth, concerning the Earl of Essex's journey in Ireland in 1599, we have mention of a garden in connection with the Castle of Cahir, in Tipperary, capable of containing three hundred men, situated upon a rock in the valley of the Suir. This garden might be deemed free from depredation; but to what extent its cultivation was carried we know not.

Dr. Peter Lombard, Primate of Armagh, in his work *De Regno Hiberniæ, &c.*, published after his death, gives us some scant particulars of the state of cultivation in the commencement of the seventeenth century. As the learned doctor died in 1625, it is possible that many of his statements relate to the end of the sixteenth century.

"Artichokes (writes the doctor), pepones, which are either pompions, a species of melon, or, I rather think, cucumbers, cauliflowers, and hops transplanted from other countries, thrive very well here." These esculents were probably at this period of late introduction to the country. As to vines or vineyards the primate affords us no information; but he thinks with equal skill and application that Ireland could produce at that time wine as good as France or Germany.

Farming and stock-rearing appear to have been ill understood in Dr. Lombard's time, and it will be hardly out of place to give the substance of his remarks.

He thinks it was not so much the mildness of our winters that made people neglect cutting hay, as inattention to the stock, to the ground he held. There was very little stall-fed cattle—those brought to the market were not half fed, nor was that most essential part of rural economy understood—farm-yards, dry-housing, and dry fodder. The beasts were let to grow accustomed to the severity of the weather, and a few fields of waste grass were deemed sufficient for the winter.

Dr. Smith, in his history of Kerry, gives us a specimen of the formal system of gardening introduced into this country by some English settlers in the seventeenth century:

"At Ballybeggan, in the county Kerry, there are some good old improvements which escaped the universal devastation of the times, particularly some fine avenues of walnut, chesnut, and other trees, with large, old, but thriving orchards planted in a rich, limestone ground, beneath which there are several subterraneous chambers lined with stalactical exudations."

The planting of trees to form long groves, avenues, and shrubberies was common to the seventeenth and eighteenth century, and very few gentlemen's demesnes of note were without them. Yews, palms, box, and evergreens of every description were planted and cultivated to profusion through the eighteenth century, and many of these of the larger growth were cut into the most fantastic shapes.

Dr. Smith, before alluded to, mentions a garden at Bangor of this nature; and speaking of Listerne, in the county Waterford, he writes:—"There was a large and beautiful canal, at the further end of which is a *jet d'eau* that cast up water to a considerable height."

We have an account of Lord Chichester's gardens, given by Joseph Cooper Walker on the strength of a manuscript once in his possession. The description relates to the period of 1634:—"The only grace of this town is the Lord Chichester's house, which is a very stately house, or rather like a prince's palace, whereunto belongs a stately gate-house, and graceful terrace, and walke

before the house, as is att my Lord Fairfax's house. A very fine hall there is, and a stately staircase, and faire dining, carrying the proportion of the hall. Fine gardens and mighty spacious orchards, and they say they have a goode store of fruite. I observed on either side of this there is a dove-house placed one opposite the other in the corner of the garden and orchards. A most convenient place for apricots, or some such tender fruite, to be planted against the dove-house wall, that by the advantage of the heat thereof they may be rendered the more fruitfull, and come sooner to maturitie: but this use is not made thereof."

Throughout the seventeenth century, enclosing spaces and diverting the courses of rills and streams to form ponds and ornamental lakes and islands, was practised in different parts of the kingdom; but it was not until nearly the close of that century and the beginning of the next the fashion became general, and gentlemen's seats began to grow more and more ornamental in conformity with the different tastes of the owners. Of hot-houses or forcing-houses very little evidence turns up in the country, even in the last century, though we have a tradition of fruit being forced in gardens at Blessington in the reign of James II. These gardens appear to owe their origin to an English gentleman who fled his estate in Byfleet, in Sussex, to escape the persecution of Cromwell. One would imagine that his act was leaping from the frying pan into the fire.

The seventeenth century gardening innovators, to whom we owe much, however, set a bad example to our countrymen, for in aiming to excel nature, they outraged it. Geometrical gardening, within judicious limits, if harmonical, is beautiful; but to twist trees and flowers into men and animals' shapes, and build up a Babel of grotto work, and call it "architectural gardening," is a piece of absurdity. Yet this was the system that grew into repute for a while in the last century, as we shall show hereafter. In Charles I.'s reign gardens came under the care of the legislature—for in the tenth year of that monarch's reign an Act was passed, entitled "An Act to avoid and prevent divers misdemeanours in idle and lewd persons in barking trees, &c." This was a wise enactment, for it doubtless effected some good long before this time; however, the majority of the forests disappeared, not for the purpose of fuel, but in wanton destruction. The natives were not the only sinners, for during the wars of the Pale, the woods formed safe ambuscade and strategetic points from which to watch an attack of the English rulers. Fire, as well as the axe, thinned many of them, and their glory gradually departed as time wore on. In Charles II.'s reign some of the clergy of the Established Church got more utilitarian notions into them than ornamental ones, for we find them asking permission of parliament to turn their gardens to account. They succeeded in their prayer, and an Act was ordained empowering the precentor and treasurer of the Cathedral Church of St. Patrick's, Dublin, and the Archbishop of Dublin, to make leases of part of their yards and gardens for sixty years.

The English settlers introduced the French and Italian systems of gardening into Ireland, and this method continued in use until after the date of William the III.'s entry to this island. Soon after up sprung what has been termed the Belgic style, under which system gardening for a time "ran mad."

In his Majesty's garden at Chapelizod the Belgic method got full swing, and in the year of 1717 an overseer to these gardens was placed on the civil establishment, at a salary of £120 per annum.

After some years these gardens became totally neglected, and long before the close of the eighteenth century the place where they flourished was "a scene of desolation." The trim gardens and the quaint flower-knots edged with box of various fantastic and geometric patterns, which distinguished the gardening of William's followers, developed a love for flowers and plants, although it did

not generate a healthy system of gardening. The cultivation of flowers, though sparse in Ireland, yet, according to Fynes Moryson, the country was not destitute of them. We read of flowers being strewed on the streets of Kilkenny in the greeting of the Earl of Essex during his journey through that town in 1599, and, we believe, a similar greeting was given to the unhappy James II. on his entry into Dublin. Though Horticultural Shows properly belong to the present century, Dublin can boast of the existence of "The Florists' Club" as early as the reign of George I. It is to the Huguenots as a body, some of whom settled in this city after the revocation of the edict of Nantes, that we must ascribe the general introduction and cultivation of flowers, and it was some of their members also who founded the flower club alluded to. They held their meetings in Dorset-street—then Drumcondra-lane—at an inn called the "Rose Tavern." This tavern must not be confounded with another of the same name which stood opposite to the Castle steps, alluded to by Swift in his odd verses on his own death. Of this Rose Tavern Swift writes in 1731:—

"Suppose me dead, and then suppose
A club assembled at the *Rose*."

The Huguenots Florists' Club that existed in Drumcondra-lane, continued till the close of the reign of George II. Premiums were adjudged to the members who produced the most beautiful specimens of flowers, and certain days were set apart for the shows and meetings. Thus, a love of flowers and gardening was encouraged, and the Rose Tavern became as memorable in Drumcondra as the "Big Tree."

While speaking of the locality of Drumcondra we must not omit to mention the noted gardens of Mr. Fortick, on Jones's-road (or rather where that road now exists), in the last century. We have an old map of Dublin, of 1798, before us as we write, and the road now called Jones's is marked Fortick's Lane. The letter *r* should be eliminated. The road or lane at that time branched off at the foot of Ballybough Bridge, and continued no further than Fortick's grove, the residence of Mr. Fortick, afterwards the demesne of Frederick Jones, *alias* "Buck Jones," the lessee or patentee of old Crow-street Theatre. It was Jones, or through Jones the road was afterwards made a thoroughfare, Jones's Bridge built, and Russell-street continued to the gates of the present Clonliffe College, the original grounds alluded to. In Mr. Fortick's garden at Drumcondra, trees and shrubs were cut into the most fantastic shapes and forms, "figures of men with their arms in various positions, cut in yew and box, and the figure of a colossal goose in the latter."

At the top of New-street, gardens were laid out in the reign of Queen Anne, by a Mr. Bullen, a native of Westmorland, who settled in Dublin at that time.

These grounds have been built on for many years, but vestiges of the orchards and apple trees of Bullen's garden may be traced in connection with the gardens of many of the old domestic dwellings at the head of that street. Upwards of thirty years since patches of orchards might be seen around this quarter.

Mr. Walker, writing of Bullen says:—"He had a nursery consisting of four acres, which he held under one Rowe, who had been his predecessor in that line. He was employed like Loudon and Wise by the nobility and gentry in laying out their gardens."

The first pine-apples produced in this kingdom were said to be raised by Bullen. In the New-street gardens the plants and trees were treated in a whimsical manner in consonance with the fashion of the time. Among the oddities in gardening in Bullen's ground were a hare hunt and boar hunt in box.

The Huguenots of Dublin are credited with the first introduction of the shears, and it was used by them and their disciples with a vigour and a vengeance. Nature's loveliness and wildness was tamed, and an artificial wildness, a thousand times more wild, sub-

stituted. The Vandal shears began its sad havoc in the neighbourhood of Dublin, and there was scarcely a nobleman's or gentleman's seat throughout the kingdom that eventually escaped under its unrelenting usage. Box, palm, yew, evergreen, garden, and roadside hedge was not only docked, but these evergreen shrubs were cut into the shape of men, beasts, birds—wild and domestic. Streams were not let flow as they listed, but were taught to intersect each other, circumscribe islands and expand into lakes. The Dutch mind of King William's followers had little discrimination or taste as to the effect or nature of landscape—they were not fond of the sunk fosse or fence. Like their countrymen, who beat back the sea, and built up their cities on piles, the Dutch in Ireland beat back the face of nature from their plantations, built up high walls around their gardens and improvements, and unkindly shut out a view of their grounds from the people, and in doing so shut out the view of the surrounding country. Long avenues, all in shade, and shady groves, all in gloom, were the approaches to their mansions, and heathen deities or myths did services in the form of flower-pots or pedestals on their parterres.

In reaching to the hall door of these mansions you had to wind round or ascend terrace raising over terrace, with neckties of flowers. The human dress was imitated sometimes as well as the human figure, and this and all the rest we have been describing was considered the very acme of gardening.

We have had fantastic gardening, however, to some extent in the country before the days of William III. At Archbishop Usher's Palace at Drogheda, an anonymous traveller writes, "here is a prettie neat garden, and over against the window, in the gallery end, upon a bank, these words in fair letters are written, 'Oh man, remember the last great day.' The bank is bare, the proportion of the letters is framed and cut in grass."

This religious gardening might be pardonable in a cemetery at first sight, though on reflection we think it is out of place anywhere. The rage or fashion for forming names of persons or places by the arrangement of flowers, shells, or green sods of grass is still in practice. Occasionally along the line of railway in different parts of the kingdom the name of the station will be found tricked out in a species of ornamental gardening.

Perhaps, after all, this passion shows how strong the love of flowers and gardening is in the human heart, and how it finds means for giving expression to itself even in the most unpromising places.

As the subject grows upon us as we proceed, we must defer other details of the progress of gardening and its associations in Ireland to another paper.

DUBLINIENSES.

THE CO-OPERATIVE CONGRESS.

INDUSTRIAL partnership on the part of working men engaged in various branches of trade, is now, and has been for some time growing universal. A congress has taken place at Bolton on the first of the month and lasted for some days, at which eight of the delegates of the leading Co-operative Societies of England attended. The business transacted was practical and instructive.

Before giving a summary of the proceedings the writer of these words may remark that upwards of twenty years since he advocated some of the very projects proposed to be carried out, and notably that of a co-operative system of banking in the interest of small tradesmen and workmen. Every one of the projects that are proposed, and which efforts were made to carry out with the help of a few earnest friends, are now either realised in part, or in process of realisation as a whole. Public opinion ripens much in twenty years, and what was once considered impracticable has been found no longer difficult.

The practical Mechanic's Institute has grown

into the Workman's Collogeo, the small co-operative partnerships have expanded into bodies of gigantic manufacturers, and capital is no longer confined to one or to the combination of few, but to many, and these many may be, and are often, bodies of workmen. So much for the principles of co-operation, which, if always confined to industrial movements must eventually work an exhaustive reform in every branch of human labour.

Mr. Hughes, M.P., presided at the opening of the Congress at Bolton, and delivered the inaugural address, which was chiefly devoted to a discussion of the question of co-operation in its relation to the retail trader. He combated the arguments of the Tradesmen's Associations, and held that the duty of the latter, and of all retail traders, was rather to establish their own trade upon sound and just principles than to oppose the principles of co-operation. He spoke in the warmest terms of the advantages of the co-operative principle to the working classes. Mr. Pare, the hon. secretary to the Congress, then read the report of the Central Board for the years 1871-72. Mr. G. J. Holyoake, in moving the adoption of the report suggested the establishment of a Central Board in connection with these Congresses, the duty of the Board being to take charge of the interests of co-operators in and out of Parliament. Mr. J. Allan, Glasgow, seconded the resolution, which was adopted. Mr. E. O. Greening, London, then read a paper upon "How far can Co-operative Societies safely combine in a system of mutual guarantee, so as to give security to each?" Mr. E. V. Neale, London, in discussing the paper, spoke of the advantage of hiring capital; and observed that the only thing required to enable co-operators to obtain any amount of capital with which to promote the objects they had at heart, was for co-operative societies to be able to guarantee capitalists by satisfactory security, and he suggested a system of insurance.

At Tuesday's sitting, which was presided over by Mr. E. V. Neale, Mr. W. Nuttall, of Oldham, read a paper on "Co-operative check systems: where they fail, why, and how to improve them." His argument was that the check system required by co-operative stores was not one on goods, but one on cash. After some discussion, Mr. Lloyd Jones, of London, moved, "That while experiments in effective checking be continued and compared, with a view to improvement in that respect, this congress recommend to the various stores the propriety of paying bonuses to their servants in proportion to their wages." Mr. Holyoake, of London, seconded the motion, which was carried, with the understanding that the Central Congress Board call in outside friends to discuss the whole check system. Mr. J. Borrowman, of Glasgow, read a paper on "Productive Co-operation," in which he argued that the only possible foundation on which co-operative production could fructify and extend was that the separate claims of the consumer, producer, and capitalist should be clearly and equitably defined and adjusted. Other papers were read, and on the motion of Mr. Pare, seconded by Mr. Jones, it was resolved, "That the Central Board be requested to collect statistical information, such as in their judgment will illustrate the most advantageous modes of employing the accumulating capital of co-operators in a joint scheme, which might prove generally beneficial to the co-operative body, and lay a report embodying the result of their inquiries before the next Congress."

On the following day Mr. Walter Morrison occupied the chair, and the delegates discussed the questions of co-operative industry, the best mode of employing surplus capital, and the wholesale method of co-operation. The delegates were largely in favour of the wholesale society enlarging its sphere of operation so as to be able to supply retail stores with the articles most in demand. Mr. Rupert Kettle, of Wolverhampton, explained at length the labour bank system of Germany, which he believed could be carried out without difficulty in this country. A resolution

was passed, authorising the Central Board to appoint a committee out of its own body to discuss the question of co-operative banking, with a view of bringing it to a speedy practical issue.

THE REVENUES OF THE LONDON AND DUBLIN CORPORATIONS.

THE various rents received by the London Corporation during the year 1870, amounted to £77,286 6s. 2½d. The city of London, our Dublin readers must know, is after all but a small portion of the metropolis. With the sums received on account of duties, brokers' rents, and sundry fees, this amount is augmented to £210,679 14s. 8d. The dividends on stock amount to £10,216 8s. 2d., the interest on temporary investments £325, reimbursements £8,400, the sale of property and interest on purchase-money £9,768 4s., loans repaid £13,500, the renewal of loans on Cattle Market account £40,000, and received on account of loan raised for the purchase of the Foreign Cattle Market site at Deptford £30,000. The rents and profits of the Bridge House Estates is a separate account. In various rents £44,048 12s. 1d. has been received; £179 3s. 10d. as dividends, £305 8s. 11d. for sale of property and interest on purchase-money, and casual receipts £99 18s. 6d.

When will we have a fair statement given to the ratepayers of Dublin of the income and expenditure of the City of Dublin Corporation? The history of its incumbered and mismanaged estates during the nineteenth century would exhibit a frightful detail of incapacity and extravagance, astounding law expenses, and gross impropriety and neglect.

For many years past it has been the sole aim of a certain quota of our Municipal Council to devise means whereby the office-bearers could be increased in number, and the salaries of existing ones increased in amount.

Several members from time to time who held office from the Lord Mayor's chair down to the general committee-man, have used their influence by every form of procedure to vote in, not only their friends, but their relatives. The Corporation exchequer, in other words the ratepayers' money, has been shamefully trafficked with. The municipal coffers have been used as a milch cow, and it is hardly a matter of wonder that insolvency should be the result of such a system, and consequent incapacity and imbecility the sequel.

THE NEW LAW COURTS, LONDON.

THE criticism on the New Law Courts has not yet ceased, nor is it likely, even though the Government carry out Mr. Street's design without material alterations. There has certainly been some hard hitting on each side on the part of architects, their partisans, and the sympathising public on either side. We believe this criticism has achieved much good, and is likely to achieve more if divested of all personal or narrow-minded views. The *Morning Post* observes—"That the design for the new Law Courts has been as universally condemned as a design well could be, and yet if Mr. Ayrton be allowed to have his own way it is to be forced into execution. On Friday last the First Commissioner of Works announced the determination of the Government to proceed with the building according to Mr. Street's design, and not to re-open the question. It must be admitted that the whole affair is in a fearful muddle. It is much easier to find fault than to suggest a satisfactory escape out of that mess. But it ought to be the function of the Government to find a way out of the confusion which they themselves have either created or allowed. Certainly the way they have chosen is as strange as it is unsatisfying. It amounts to this—that because a good deal of time has unfortunately been lost, therefore the building must be pushed on irrespectively of the architectural shortcomings which it may contain. But what, after all, are a few years, as compared with the ages for which the build-

ing will have to stand and testify either to the poverty or the richness of the æsthetic taste of the nineteenth century? What is the convenience of the lawyers and the interest of the money paid for the site, to the building in the most perfect manner possible of a great national structure? If the Government cannot get rid of Mr. Ayrton—and perhaps they would not be very unwilling to do so—and if Mr. Ayrton will not in this matter, as in others, conform to the manifest wishes of the country, why, let the question stand over until we have either a competent and complaisant Commissioner of Works, or until, happily, we have a change of Ministry."

There is one matter with which we go the whole way with our contemporary. We do indeed need a competent Commissioner of Works. It would be too much to expect that he should be either a clever artist, architect, or engineer, though of the three he ought to have some knowledge, and also respect for those who follow these professions. In the absence of the knowledge, it would be much better, for the credit of the country and the Cabinet, that the Chief Commissioner should hold his peace about matters he does not understand. If he would take this advice he would not so often burn his fingers in touching matters that cannot be handled with impunity by the equally awkward and equally ignorant.

THE PROFESSION, PRACTICE, AND PROSPECTS OF ENGINEERING IN IRELAND.

WE offer no apology for presenting to our readers the excellent address of Mr. Bindon B. Stoney, M.A., M.I.C.E., the first portion of which we print below. It is an excellent paper, and we do not remember a more clear or practical address delivered in this country for a considerable time past. To aspirants to the profession, to practising members of the profession, or to the intelligent public outside the body, it affords much instructive information expressed in language as plain as a pikestaff, and as pointed as the weapon that surmounts it. There are several topics touched upon in the address which we have already ourselves discussed, and there are several more which it will be our duty from time to time to enlarge upon. The past is lucidly explained, and the future is clearly foreshadowed in connection with the practice, range, and duties of the professional engineer both in this country and elsewhere. In our next issue we will give the concluding portion.

INAUGURAL ADDRESS.*

The profession of civil engineering, having sprung into existence within the present century, cannot claim that *prestige* or those prescriptive rights and influence which appertain to the older professions, and the line of demarcation between the engineer and other men is so loosely defined, both by law and custom, that anyone who wishes to claim the title of civil engineer may do so without check or remonstrance. This is not a desirable condition of affairs, and though the members of the profession themselves may have an ideal standard, it wants the authority and sanction which appertain to the various titles of other professions. There are, however, certain marks or guarantees that a man is really a civil engineer which are now pretty well understood and which are applicable to nearly all who of late years entered the profession. These qualifications are one of the following—(1) Holding the diploma or degree of a recognised school of engineering, such as those connected with the universities; (2) having been a pupil for at least three years with an engineer of acknowledged standing; (3) being a member of the Institution of Civil Engineers.

* Inaugural Address, delivered at the Meeting of the Institution of Civil Engineers of Ireland. By the President, Bindon B. Stoney, M.A., M.I.C.E.

The time has gone by when practical sagacity formed the sole qualification of an engineer, and though there were during the last generation some memorable names on the roll of engineers, generally self-taught men, whom great natural ability and special aptitude for their work had raised to pre-eminence in their profession, such men would now have a poor chance of competing with their more highly educated brethren who combine scientific training with practical knowledge. It is, indeed, of the highest importance carefully to consider what is essential for the education and training of an engineer. Hitherto it has been too much the practice to consider that ordinary mechanical tastes are enough to stamp a boy as being suited for the profession, and fond parents are sometimes apt to think that because their son prefers making rabbit hutches, boats, or such like toys to learning his lessons diligently, that therefore his tastes mark him out as a future Rennie or a Stephenson. There can be no greater mistake than this, and in no profession perhaps, now that competition has become excessive, is there so little prospect that men who are mentally deficient, or who are averse to intellectual labour, will succeed in obtaining a high position. It is true that the prizes in the engineering profession are few, and therefore there is little inducement for men of talent to select it as their profession, especially in Ireland where their services are so poorly recompensed, nor has the treatment of civil engineers in the Public Works Department in India been hitherto calculated to draw men of ability into that service. In the earlier stages of educating for the profession we find also that, while other professional schools have prizes of various kinds offered to stimulate youthful ardour and reward merit, to the School of Engineering of Trinity College, Dublin, which has now been established for some thirty years, no prize or scholarship of any kind is attached, and this neglect of their interests has been much felt by successive students. Up to a comparatively late period the usual method of entering the profession was by becoming a pupil of some engineer in practice and having what was called the run of his office. This, perhaps, was well enough for the simpler kinds of railway engineering which had become more or less stereotyped and required little more than a knowledge of earthwork, surveying, and masonry of the simpler kinds; but when iron structures came into fashion and when anything outside the ordinary routine had to be designed or carried into operation, we find that this amount of knowledge failed and a demand arose for higher attainments. As the field of engineering adventure became enlarged and harbour, hydraulic, and marine engineering became more and more important branches of the profession, it soon became evident that scientific training was quite as essential as practice, and there are few now who will venture to dispute that both combined are essential for the rising generation of engineers. Complaints have been made not unfrequently, and in some cases not without justice, that the preliminary theoretical training was superficial and that competition for students had led the schools to give diplomas or certificates to unworthy men. This, I fear, is not confined to the engineering schools alone, but more or less pervades much university education. In some cases it may, perhaps, be partly attributed to requiring men to go through too extensive a curriculum of study, but I believe the one great fault which pervades nearly all the higher branches of education in this country—and I would confine my observations to the education of the average run of mankind, for I am not treating of prize men and honour examinations—is this, that a very low standard indeed is sufficient to pass an examination and qualify the student for a further step in his college course. A loose and slovenly method of mental work is the result and a confirmed disinclination to grapple manfully with any difficulties which may arise, but which it is easier to let slide than overcome by an accurate process of

reasoning. Incompleteness and an unsatisfactory way of half-doing things is the consequence and I know of no greater annoyance than having to depend on the untrustworthy efforts of a mind thus enfeebled. The true remedy for this seems to be to insist on an exact knowledge of whatever is professed to be learned, be it ever so small, and if men are unable to compete for honours, that is no reason why they should be allowed to pass ordinary examinations with a mere smattering of that knowledge the acquisition of which the examination professes to test. If the average man is unable to cope with an extended course, it would be far better to shorten the course and compel him to acquire a really thorough knowledge of a few subjects than let a wretched skirmishing over a wider range qualify him for passing to a higher class.

There is no doubt that in technical education we may usefully borrow much from our continental neighbours. In the Central School in Paris, for example, we find what appears to be an excellent system of testing the comparative merits of the pupils, who are subject to frequent compulsory examination, not only at the end of each year's studies, but also during the course, and at their close. At first the council of the school, when definitely classing the pupils according to their merits, took into account only the marks obtained at the final competitive examination at the end of the third year, when each pupil had to present a project on a given subject. But experience soon showed that a pupil who answered correctly the questions put at the examination was not unfrequently a very indifferent pupil favoured by a lucky chance. It was, therefore, decided that the average marks of the third year should be added to those of the competition in appreciating the merits of the candidate. As pupils were often found to be somewhat negligent in the second year, it was subsequently deemed advisable to carry this principle still further, and take into account the marks of the second year in awarding the diploma or certificate of capacity, and in assigning the pupil his place in the list published in the *Moniteur*. With all these precautions, it is scarcely possible that there should be any great mistake in appreciating the merits of the pupils, and M. Perdonnet, from whose report I have extracted the above information, adds further that this fact seems to have been well understood by manufacturers, for most of them require candidates for employment to produce either a diploma or certificate, and as the latter is of much less value than the former, we every year see old pupils who have obtained certificates only present themselves again to compete for the diploma.

As I have often been asked what I considered the best method of learning engineering I shall devote a short space to this consideration. First and foremost, let the embryo engineer, after having had a liberal school education, be well instructed in those branches of science which directly bear on his future profession; and here again I may observe that the usual curriculum might probably be curtailed with advantage by omitting, or at least not making compulsory, some few subjects, such as crystallography and possibly mineralogy, which, though no doubt very desirable branches of knowledge in their way, are in no respect essential to the practice of ordinary engineering. The human mind being limited in its capacity, it is not desirable to make obligatory those subjects which are not absolutely necessary for the ordinary exercise of the profession—far better, as I have already urged, would it be to demand a higher standard in the essentials. If a man is intended for the profession of a mining engineer or a geologist, by all means let him learn these exceptional studies, but that is no reason why ordinary engineers should spend time over matters that are, to a certain degree, irrelevant, at the expense of more vital subjects. The system in some of the continental polytechnic schools and universities seems in this respect one worthy of imitation, viz., to allow men to take up and thoroughly work out particular branches of

study, and not waste their powers over a diffused course, much of which is dropped the moment the pressure of having to pass an examination ceases to act. An arrangement somewhat similar to this exists in the Glasgow University and in the Queen's Colleges in Ireland, and in the former it has been found to answer in cases where the winter can be devoted to study and the summer to the practice of engineering or industrial pursuits. There are also numerous instances, especially in a large city, where men would gladly attend special courses for the sake of acquiring knowledge without expecting any certificate of attendance; and it seems properly within the functions of a great teaching institution like Trinity College, Dublin, to afford enlarged facilities of this kind to anyone who wishes to avail himself of them on payment of a reasonable fee, without requiring such students to matriculate. In order to gain the theoretical knowledge required for the profession of a civil engineer it will be advisable to become a student in one of the University schools of engineering, and this course of theoretical training cannot be considered completed in less time than three years. Besides scientific knowledge the student in the schools should learn surveying, drawing and such technical knowledge of his profession as can be acquired from lectures and books. In drawing of details, especially, should accuracy be insisted on, and to each school should be attached a first-class mechanical draughtsman, one who has been through the workshops himself and has practised his calling successfully for some years in extensive mechanical establishments. This draughtsman should teach daily in the drawing-office, going round from desk to desk, and, acting under the directions of the professor of engineering, he would relieve the latter of much mechanical labour, which should not occupy his time to the exclusion of more important professional duties. After the student has gone through his three years of the school he would be qualified to become a pupil either of a civil or mechanical engineer, and having already a correct appreciation of theory and a mental training of a kind likely to develop habits of industry, application and observation, he would in two years' apprenticeship learn more than on ordinary pupil raw from school would in five, and when thrown afterwards on his own resources would not display that lamentable ignorance which is occasionally exhibited by those purely practical men whose scientific education has been altogether neglected. The time thus occupied in learning his business will be five years, or six years if the student takes out his B.A. degree, a thing he will have no reason to regret in after years; and if he enter college at seventeen, he may expect with due diligence to become an engineer who can hold his own and be useful as an assistant at twenty-four years of age. Of all the qualities most essential to a young engineer, and one in which a large number are very deficient, is exactness. A want of thoroughness and completeness in that they have to do is the bane of many a young man, who, in many other respects may possess qualities calculated to be useful to his employer, but nothing can supply the want of accuracy, and this is chiefly to be obtained by a patient grappling with the difficulties of each little matter that may arise and not letting it go till he has mastered all the details. The practice of this goes far to insure success—the reverse to entail failure. The idea that matters will shake themselves right in the long run is very fine in theory and, no doubt, to a great degree true in reality; but it generally will happen that the indolent and inexact assistant engineer will also find himself shaken out of employment by this natural process of rectification in which he blindly trusts.

Connected with this subject of technical education, a matter has frequently strongly impressed itself on my mind when witnessing the wasteful application of power by the labouring classes, namely, the great want of a certain amount of practical technical know-

ledge being taught in the primary schools. The working classes are perpetually engaged in operations which require them to move about heavy materials in various ways, both by manual and mechanical labour, but few, indeed, have any intelligent idea of the use of the lever, the pulley, the wedge, or the screw. As to friction, most of them seem to have no conception whatever of it, or how to relieve or mitigate its effects, and I am fully convinced that a little practical education with experimental apparatus of a very simple character and instruction in the working of ordinary machinery would be quite as useful and apt to awaken intelligence in the attendants of the primary schools as their book knowledge, and probably quite as interesting to the young learners. Now, that machinery for agricultural purposes is coming into every day use, this kind of knowledge would be quite as important for the agricultural labourer as for the navy or builder's labourer, and it cannot be doubted that to the soldier also a sound practical acquaintance with elementary mechanics would often prove of extreme value in time of war. Having regard to the competition which we sustain from abroad in all the industries which have hitherto distinguished the United Kingdom, it seems more than ever necessary that we should endeavour to let nothing escape us which may aid us in maintaining that supremacy which was so hardly won and which is now so stoutly attacked from every quarter.

CIVIC LYRICS.—No. XI.

THE BATTLE OF THE HOPPER-BARGES.

The mighty engineering plan of Neville far surpasses
Pons Assinorum, or the bridge of famous Roman asses.
Perhaps it is to Bazalgette we owe the barge invention,
Which knocks into eternal smash all common comprehension.

"Dear dirty Dublin," what on earth have you done deserving
These floating cesspools 'neath your nose, upon the Liffey serving?

Need we ask the reason why your dirty fame enlarges?
You swam in filth, but soon your filth will swim away in barges!

'Twill float away, and then float back, up with the tide returning,
Spreading plague and fever 'round, mortality and mourning;
And for these flagrant scandals, of which there's no gain-saying,

A civic rough-shod city will through the nose be paying!
Is Dublin dead and lost to shame, like that old addled body
Of brazen mould and fishy tongue, and dress and manners
"shoddy"?

If she is, then let her sink below the foul discharges
In the Bay, of Neville's sham and rotten hopper-barges!

With dirty streets and dirty lanes, and dirty yards and houses,
The fish-fag Council jobs, yells, laughs, and finally carouses.
Sir Simon Pure the rostrum mounts, with double face like Janus;

He murders truth, he augurs hope, as distant as Uranus!
"They are the guardians of the town"—they, the Municipal:
For common-weal they tax the poor, and rob the blind and cripple!

Long live the reign of public fraud, cook'd audits, and law charges,
And down with muck (say we), low Councilmen, and barges!

Chatterboxes strut the boards, and jackals hunt commissions;
Bullies vote away the funds, and Placemen seek remissions.

Nightmares fill the chair always, and choke the smoking embers
That "Topsy-Turvy" fired long since in all the council-chambers.

Where's the Town Clerk?—send him in!—a storm has arisen!
Where's the Borough Engineer?—haste!—cut in twain the mizen!

Count the house, ye hireling "Whips," and move all
"standing" charges
Be adjourned, till we pass the vote for hopper-barges!

And is it only all a dream—a punp without a handle,—
A lightning flash of truth across a sea of seething scandal?
The rose, 'tis said, would smell as sweet—but more we need not utter,

For filth is filth, just all the same as sewage or as gutter.
Our local body rolls in filth, as if it meant salvation;
To lift it up from filth, 'twould seem to be its dire prostration.

Let it wallow in its mire, 'neath loads of debt surcharges,
And, when dead, be sunk at sea in Neville's hopper-barges!
CIVIS.

PROGRESS AT CHRIST CHURCH CATHEDRAL.

On visiting the works at this building during the past week, we found that the south aisle wall has been entirely removed, and the foundation of the new wall built up to ground line. On taking down the old wall of the north aisle, a spiral stair was discovered leading from the north aisle floor to roof of north aisle and baptistery. The west gable of nave is removed, and the jambs of the early window are exposed to view. On examination, the columns of northern arcade were found to be patched up with large pieces of oak, and lath and plaster. These columns had necessarily to be replaced with others of Caen stone. The old capitals and arches have been retained in their ancient grandeur. In the vaulting of crypt, the groins were found to be made up with blocks of oak, which were totally decayed, and could not have supported the floor of the building much longer. These are being replaced with limestone groinings.

Breaking out of the wall of north aisle, a baptistery is being erected, the inside of which is composed of Caen stone, with groining piers and shafts of polished limestone, banded at intervals with Caen stone annulets. The mouldings are of the same dimensions and character as the old work discovered in pulling down the wall of this aisle.

In removing the *débris* of crypt under south aisle, an ancient capital was found, which, with a portion of the angle shaft on which it was intended to rest, we illustrate in this number. The moulding shown under old cap is the same as that running up the angles of buttresses on north side, and which is being reinstated.

In sinking a well in Christ Church yard to obtain water for the works, at a depth of twelve feet from surface, the red tiling of kitchen floors of old houses which formerly stood on north side of "Skinner's-row" was found. Another depth of about twelve feet was found to be of made earth, then a stratum of gravel and clay mixed for about sixteen feet. Underlying these a calp of good quality was found. The well has been sunk into this four feet, and a jumper hole of eleven feet bored. A small engine attached to a mortar mill will also be used for pumping up water.

THE LEWIS PATENT ROTARY LITHOGRAPHIC MACHINE.

We have been favoured by an inspection of this unique novelty in the way of lithographic printing machines, and must congratulate the inventor, Mr. Joseph Lewis, of Dublin, at the successful termination of the difficult task of combining this *multum in parvo* of a lithographic printing office. Stone cleaning, transferring, and printing, all done in the most rapid manner, and quite up to the standard of the work done at the hand-press. The practical knowledge and long experience of the inventor is realized in the various advantages which are here combined in a single machine, viz., the feed, the ink-distributing power, the damping, the concentrated pressure nip, register, immunity against stone breakage, the self-delivery, ease in working and compact form, working in a space of some three feet square. The machine itself seems perfection in mechanical adaptation, each part performing its duty with precision and in perfect quietness. The work we saw produced was performed by hand-power; but the machine has the usual steam appliances. A single person was able to feed in the sheet with one hand, and with the other turn the handle, whilst the automaton travelling gripper took careful charge of each printed sheet as it emerged from under the stone, and unerringly deposited it on the pile of printed matter on the table. And now that the rotary principle has become a fact, we may be excused for expressing our conviction that the future of the lithographic art is very much wrapped up in the development of the rotary system carried out to its fullest extent. The immense speed attained at the rotary

type printing machines proves what may be accomplished on the curved stone principle—no return motion or vibration—guaranteeing both perfect register and unlimited speed, are advantages not to be passed over, and there is little doubt that there is a useful future for our art as well as room enough, if not a vital necessity, that we should look earnestly for every means of rapidly producing a perfect lithographic design in colours. There is a trade springing up calculated to supersede the brush and palette; we refer to the transfer process, by which panels, bedsteads, trays, and a variety of ornamental cabinet work and decorations are now ornamented by having prints executed in chromolithography transferred to their surfaces, and when burnished or varnished over, possessing all the genuineness of oil painting done by the master hand of the artist. Here, then, is a field only restricted by the expense and tedium of lithographic printing.

Manufacturers, publishers, and scientific men, are fully aware how cheaply and rapidly they can have their ideas realised on the lithographic stone, but the question of multiplying the copies has compelled them to seek their objects by wood engraving, which, although both expensive and tedious to prepare in the first instance, is preferred, as the impressions cost so little. What is wanted, therefore, is to have the work on stone printed as rapidly as it is done at the type machine; we think the Rotary Litho Machine places the desideratum within reach.

Then, again, we have the wide fields of wall-paper printing, and the printing of designs on fabrics in glowing colours. These two important industries can now avail themselves of the Rotary Litho Machine, which, we are assured, can be easily adapted to print from the roll at a high rate of speed and in perfect register. If this can be accomplished, we may look forward to a vast improvement in the artistic style of room paper, and in the ornamentation of textile fabrics of every kind. Lithography may yet ornament our walls, as well by covering it with artistic wall paper as with framed chromos, as also the oil cloth of the hall and the table-cover, as it now does the jappaned tea-tray, the enamelled iron bedstead, and a vast variety of iron, brass, and wood-work.

We understand the new Photo Mechanical Printing Company of London have adopted the Lewis Machine, with which to print off their gelatine plates of photographs at the forthcoming exhibition.—*Lithographer.*

NEWS FOR THE "DIOCESAN ARCHITECTS" AND OTHERS.

We subjoin a portion of the scheme discussed and adopted at the Ossory Diocesan Council. It is worthy of the attention of the profession, for there is much mischief connected with the practice and position of the diocesan architect, who is an anomaly often misunderstood, and whose action is betimes somewhat a puzzle to himself and a source of injury to others:—

6. A diocesan architect and inspector shall be appointed by the Diocesan Council, with the consent of the Representative Body, to be paid either by salary or fee, as the council may direct."

7. The diocesan architect shall inspect and report upon the see-house and each glebe-house and church in the diocese, whenever the council require him to do so, and at the least once in every three years: provided always that an inspection and report upon the glebe-house and church shall be made upon the occurrence of a vacancy in the parish, unless the council shall otherwise direct.

8*. The diocesan architect shall furnish plans and specifications for all works ordered by the Diocesan Council, and shall superintend their execution.

9. The diocesan architect shall, when called upon by the occupying clergyman, specially inspect and report upon any glebe-house at a fee of £1, and travelling expenses to be defrayed by the applicant.

10. The diocesan architect shall, when called upon by the incumbent or select vestry, specially inspect and report upon any church or churchyard at a fee of £1, and travelling expenses to be defrayed by the applicant.

11. The diocesan architect shall furnish a copy of

* This resolution, No. 8, was not adopted by the Council.

every such report to the Diocesan Council and to the incumbent or select vestry, as the case may be.

12. No repairs done to any glebe house shall be charged to the fund unless executed on the order of the diocesan council, in accordance with a report and estimate certified by the diocesan architect.

13. When the occupying clergyman shall apply to have any repairs executed, the diocesan architect shall lay the application, with his report thereon, before the next meeting of the Diocesan Council, or of the committee appointed by the council for this purpose.

14. In cases of accident or unforeseen occurrence, the diocesan architect shall be authorised to expend a sum not exceeding £5, to be specially reported to the council at its next meeting.

NOTE.—The Representative Body propose (1) that the churches should be inspected by the diocesan architect, in order that the Diocesan Council and Synod should be acquainted with the state of the churches in the dioceses, and (2) that the clergy and select vestries should be enabled to call upon the diocesan architect to make a special inspection at a moderate fee. The Representative Body recommend that the expense of repairing and keeping the churches in order should not be borne by the Diocesan Fund, but by the select vestry in each parish, as appointed by the constitution of the church.

Here are two resolutions that were adopted, and which call for comment. It does indeed seem strange to us that an order connected with the appointment of an architect should not be deemed a proper announcement through the pages of some of our architectural contemporaries, even leaving our own journal outside the question:—

Moved by the Rev. James Graves, and seconded by R. P. White, Esq.:—"Resolved—That the secretary of the council do advertise in the *Kilkenny Moderator* and *Daily Express*, the intention of the Diocesan Council to elect, at its next meeting, a diocesan architect, in accordance with section 6 of the resolutions on glebes passed by the council on the 8th March."

Moved by E. L. Warren, Esq., seconded by John Waring, Esq.:—"Resolved—That it is the opinion of the Diocesan Council that, in future, no report of its proceedings should be furnished to the public press, except by the secretary, or by special resolution of the council."

We think the exclusion of the press a most unwise proceeding, and we do not think that any journal should receive "communicated" reports from any official. We expected to find more liberality and enlightenment in the City of the Confederation than this and other resolutions would seem to imply.

BUILDING PROGRESS IN LONDON.

CONSIDERABLE improvements are being completed at present in the city of London, both in respect to the streets and the buildings restored or re-erected. Of new buildings the extensive premises at the top of Tokenhouse-yard, being completed for Messrs. Huth and Co., of Moorgate-street, can now be seen to good effect. With the exception of the doorways, which are in stone, the whole building, inclusive of ornaments, is of red brick, and is a fine specimen of work, reminding us of some of the old palaces in Holland or Germany, or of the "Orange" period in England; but it is questionable whether the style will have many imitators in this dull climate. As a contrast, reference may be made to the addition which has been made to the North London Railway Terminus in Liverpool-street, where the judicious admixture of red, black, white, and yellow bricks appear to advantage, although there was small room for display of architectural talent. No. 32, Lombard-street, will have a fine appearance when the range of buildings is completed up to the Lombard Exchange, but at present the triple-lighted windows over Plough-court gives it a one-sided appearance. The ground-floor has handsome granite pilasters, and the key-stones to the carved window-heads are handsome. The windows of the floors above are canopied and rest on volute cornices. The house, No. 25, Austin-friars, has a stepped-gable front, the sides being in red and yellow brick. The ground floor is recessed on a pillar in front, to form a flight of stairs down to the basement which is fitted up as an office. There are four floors above, and with the exception of the top which has small arched windows, the lights run along almost the whole front, save where stone columns come between as mullions for support, embossed red tiles running over and from end to end of each window; consequently these offices are extremely light. Messrs. Henry Pound and Co.'s new warehouse in Fenchurch-street is of a substantial character. The building on the right of it is

very neat, and the warehouse on its left is perhaps the handsomest warehouse built with lifts for goods to be found in the city. It is constructed with courses of brick and stone, and the ornamentation in intaglio, which wears well in a damp climate like ours. St. Mary Aldermary is again somewhat hidden by the house at the south side, which masks the tower, and that at the east end which obstructs the "altar" lights. The first is of ordinary stucco, while the latter is of stone, and the style is somewhat pleasing. It would have been well if the church could have been left free. Messrs. J. Lusher and Sons' new premises on the Holborn Viaduct, though not large, are rather effective. The building next the "King Lud," Lodgate Circus, is finished externally, and being in the same style as its neighbour, gives that quadrant of the circus a pleasing appearance. The new offices of the City of London Union, in Bartholomew-close, are progressing rapidly towards completion. The building is in three blocks, the office block, the board-room block, and the recess or centre block. The style of architecture is Elizabethan. The first two storeys of the office block are of Portland stone, and the remainder is malm bricks, with Portland stone dressings. The recess block is similarly constructed, but finished with a pavement, upon which appears the city arms. The board-room is gained from the entrance-hall by a moulded spandrel staircase from the board-room to the committee-rooms. The frontage is 136 ft. and the depth about 36 ft. Messrs. Hill and Sons are the builders, and the architect Mr. W. Hudson. In Wilderness-row the Foresters' Hall is finished, and handed over to the Order. The designs, by Mr. W. M. Gomme, being carried out under the supervision of Mr. G. Lansdown and Pollard, architects. The building comprises a large hall, board-room, retiring-rooms, committee-rooms, secretary's office, sale-room, strong-room, refreshment-room, a kitchen, lavatories, &c. The large space under the hall is to be let for warehouse purposes. There is a gallery round, supported on ornamental iron columns, with wrought iron lattice front and mahogany rails. One either side of the hall there is a series of pilasters with foliated caps, the spandrels carrying a bold ornamental cornice. The ceiling is divided into wrought iron ornamental panels, glazed with ground glass. The hall will accommodate 600 people. At the principal and side entrances there are two ornamental porches of Portland stone, with red polished granite columns from Aberdeen. There is a large dome roof over the vestibule, as well as over the best staircase. The elevations are mediæval in detail, with Bath stone dressings, and red brick bands running round the building. The relieving arches over the windows are also of red brick, with bold cornices and moulded cast-iron eave gutters. The building is crowned with a steep-pitched roof of slate, with ornamental iron-ridged cresting. A hot-water apparatus heats the hall. The contract was executed by Mr. W. Henshaw, Mr. G. Burton being the clerk of the works. The outlay on the building has been about £8,000. The land, which is freehold, cost about £4,600, this being about £1 per foot. The Foresters have already commenced, holding meetings in the hall, which will soon be formally opened. It will be remembered that the foundation-stone was laid by Ald. Sir Thomas Daking, as Lord Mayor, in April, 1871. Outside London building operations of a certain class is very brisk. In most of the suburban districts there are a great number of houses intended for the genteel (but limited income) body of the community. We regret to add that in the majority of instances they are but mere fancy shells on the outside, and possess neither strength nor the concomitants of healthy dwellings in their interiors or surroundings.

Alexandra Park, or a large portion of it, will be shortly let for building purposes. Efforts have already been made to secure this open space for the recreation of the people by a shareholding scheme on the Tontine principle; but it turned out a failure, because not warmly responded to.

If the Metropolitan Board of Works of London took the matter in hands the Alexandra Park estate could yet be secured to the citizens of London.

Victoria Park lately ran the danger of being filched away in part by the economical mania for letting open spaces which holds possession of the Chief Commissioner of Works. With a slight loss, however, the Park has been secured for the use of the people of the East End of London.

We are partly indebted to the *City Press* for some of the foregoing particulars respecting building operations within the city. We wish our city papers would devote their columns, not exactly to the advocacy of architecture, but to advocating the opening of the public squares of Dublin to the people, and the inculcation of the lessons which sanitary science teaches. Let cleanliness be preached as well as politics, and then our homes will no longer be a scandal to civic government, and a danger to society at large.

The Irish Builder.

VOL. XIV.—No. 297

Public Records in Ireland, and Irish MS. Documents.



MORE than once we have directed attention to the state of the Public Records of this country, and the necessity that exists of having them carefully collected, classified, and a digest of the most valuable of them given to the public. Many of our records are lost; others, we fear, are irrecoverable, and may be for many long years, having passed out of the country, or into the hands of private individuals, principally among the nobility in England and Scotland. There are not a few documents connected with Irish history which are purposely kept secret and out of sight, and almost out of reach, in consequence of the historical disclosures their publication would afford. A day must come, if wanton and malicious destruction does not take place, when all important documents connected with this country must see the light, or at least an epitome or summary of their contents made known.

We are led to make these remarks in consequence of the issue of the "Fourth Report of the Deputy-Keeper of Public Records in Ireland." The information which this report supplies is not as interesting as might have been expected, but there are reasons to excuse the want. We are told some facts connected with the existence of our records which we had already known, but we are told some other things besides. The records of the Queen's Bench, stowed away in the dome of the Four Courts, are likely to remain for a long time unassorted, because no person, it is said, could be found competent to perform the labour. This is not a fact. The keeper could have found the person, if the Government will only pay the expense of doing the work.

Among the literary inquiries made during the year, the following documents were passed under review:—The Desmond Inquisitions, Patent Rolls, Act and Bill of Uniformity, documents relating to sheriffs of the County of Fermanagh, fiats, wills, and will-books, chancery inquisitions, bills and answers, chancery and exchequer deeds concerning the estates of the attainted, from 1701 to 1770, and documents connected with the Cromwellian settlement. A few of these are valuable, and, of course, time will further enhance their value.

The following were the donations received during the year 1871:—From the Lords Commissioners of the Treasury—historical documents, Scotland, 1286-1306, 2 vols.; from the Master of the Rolls, England, 13 vols. of record publications; from the Commissioners of Patents for Inventions, Index to Patents and Patentees, 1765, 1766, 4 vols. The report of Sir Bernard Burke concerning the transfer of documents and reception of State Papers is embraced in the book; and there is also an enumeration of all the papers, &c.,

removed from the charge of the district registrars in Ireland.

The report supplies some detailed information as to the matter of reparation and arrangement of the papers in the building occupied by the documents already alluded to. The Public Records of England are well attended to, and there is a suitable architectural edifice for their safe keeping. Until of late years we had no very suitable structure in this city. True, we have a Record Building now at the Four Courts, but it is not the repository of all our national documents. Some are in Bermingham Tower, Dublin Castle; others in the Four Courts; others again in Trinity College and other public libraries; and we believe the Corporation of Dublin holds a number of very useful documents in relation to civic history. It ought to be known, also, that there are collections in the hands of private individuals in this country and city, which have no right to remain in their possession, and ought to be at once remitted back to the archives from which they were taken.

Recently, the American and other foreign Governments have returned to England English documents and records existing abroad, and it would be worthy of the attention of our parliamentary representatives, whether the question should not be asked in parliament, whether Her Majesty's Government would have any objection to return Irish records and other Irish MS. documents in its possession. Many of these records were forcibly carried away from this country, and not a few of them, as we before remarked, are now in the hands of English noblemen, and a sense of honour should move them to give back to Cæsar what belongs to Cæsar. In the British Museum there are (or were) numerous MS. documents relative to Ireland, on various matters, some the labour, study, and life-long research of Irish authors, who, from a variety of circumstances, were unable, during their life-time, to publish them. Some of these works were compiled in Ireland and passed over to London; others were written by Irish authors while residing in London. We suppose it would be madness to expect that the British Museum would ever consent to return any of its collections to Ireland. Of course, as a national institution, it is amenable to the Government, and it should not be forgotten that this great institution owes its origin to the will of an Irishman (Sir Hans Sloane), whose great collection of books and MSS. formed the nucleus of this museum. It strikes us that a system of exchanges could be adopted with effect between foreign museums and libraries and home ones, and where original documents could not be well parted with, copies might be exchanged. The consideration of our Public Records opens up such a wide subject, and it is so suggestive in all its bearings, that it would lead us considerably beyond the limits proposed in the present notice. It, however, calls for the attention of some of our learned bodies in this city.

IRISH ARCHITECTURAL ASSOCIATION.

FROM correspondence in our columns, it is already known to our readers that an association of the junior members of the profession has been proposed. Preliminary meetings have been held to arrange for a general one, which will be held on Thursday evening, the 9th inst., at 212 Great Brunswick-street.

THE CONDITION OF THE IRISH AGRICULTURAL LABOURER.

WE cannot shut our eyes to the fact that the condition of the Irish agricultural labourer is deplorable. And no matter to what extent we may improve his dwelling, which, indeed, sadly needs reform, we must, at the same time, seek remuneration for his labour. Throughout the entire extent of England, and also in a portion of Scotland, bodies of agricultural labourers are on "strike," but it is a peaceful, manly, and reasonable one, and one which has met with universal sympathy on all sides and from all classes except a few of the very selfish. Of late years, the best portion of Irish agricultural labourers have betaken themselves to the mining districts of England, Scotland, and Wales; and others who could scrape together means, by hook or crook, have imitated the small farmers and have crossed the Atlantic. There are thousands upon thousands of those at home who would not stay in this island twenty-four hours longer, had they means of bringing themselves and their families out of this country. This is a deplorable fact. Ill-fed, ill-housed, ill-paid, and often ill-treated, the state of the Irish agricultural labourer, from long before the days of Arthur Young to the present hour, is a disgrace to the nobility and gentry of Ireland and the British empire.

There is no use in disguising the matter: the condition of the land serf must be improved, or with the spread of education, now rapidly advancing and rapid modes of transit, there will be left scarcely any able-bodied labourers in the country. When a few hours' sail can place even an unskilled labourer in the position of earning three times as much payment for his labour in England and Scotland as he would have or could get at home, the man must be stupid, indeed, if he would not shake his country's dust from his feet, and bid his "penny wise and pound foolish" masters farewell.

Now, let us take an instance of an Irish farm labourer, or a labourer for even a gentleman farmer in the County Kildare, Dublin, or indeed in other eastern counties, where it may be thought the condition of things are better. The wages are eight or nine shillings a week, more often the latter. In Dublin County we can find many labourers working for gentlemen farmers at the above wages. How, in God's name, are they expected to live and support themselves or their children in honesty? This seems to be no concern of their employers, though it ought. With eight shillings per week the labourer has often five or six in family. Out of his eight shillings he pays 1s. 6d. in rent for his miserable mud hovel, with mud floor, mud walls, and rotten thatch. There is no peat or turf in Dublin unless it is purchased from vendors, so the labourer has to pay 1s a week, at least, for coal or fuel. Then there is soap, candles, and other small things, independent of food, to be purchased. The miracle remains, where do the clothes for mother and children come from? Even rags cannot be picked up from dung-hills, in the shape of frocks, petticoats, bibs, coats, stocking, hats, brogues, &c. What remains to pay for food, in any shape, with four children even? Why, there is often not ten pence per week for each all round. Some poor labourers' wives may earn betimes a few shillings by field labour at certain seasons, but the children do not earn until they are ten or

twelve years of age, and then, perhaps, it is a half-a-crown a week they are offered for frightening birds, or weeding corn or potatoes. Farmers complain that they cannot get a fair day's work done. How, in God's name, can they expect a fair day's work for eight or nine shillings a week? Let them first pay for a fair day's labour before they expect it. We cannot blink the fact that the condition of the farming class had greatly improved within the last few years. They have got more ready and certain markets, and good and quick returns for their farm produce. They could well afford to pay twelve, or even fourteen shillings per week in many districts to outside labourers who receive no perquisites of any kind but their mere wages. We think that wages, in every case, would be the best system, and not allowances. We do not like a system that is liable to cover, and does cover, a rank amount of injustice—a system a little better than the "truck system." Until we raise up the condition of the agricultural labourers, we cannot raise up the country permanently—we cannot have proper farming; the soil cannot be properly cultivated, nor there cannot exist real friendly relations between the employers and the employed.

We feel it is the duty of this journal, as an industrial organ, not to overlook the claims of the labouring classes. The interest of the towns, in the agricultural question, is much greater than it would appear to many at first sight; and we would be unworthy of our position, if we did not plead a fair, moral, and equitable treatment for the field labourer. We have already advocated, on several occasions, better dwellings for the farm labourer but better wages must accompany better dwellings; for, to use a homely illustration and farm labourer's proverb—"Empty sacks cannot stand." Hungry and half-clothed men are out of place in improved dwellings, and if they are not afforded the means of living, you only enact a solemn farce, by putting them in positions where their poverty becomes more and more apparent. A time will come yet in the history of these kingdoms, when the land must be cultivated on a different system, and that time is fastly arriving.

Population is increasing everywhere, and though from a number of causes well known, it has decreased in Ireland, yet there is as great a draw, and in many forms a greater, upon the resources of this country. England, Scotland, and continental countries absorb a good deal of our produce, and the food question is a most serious and growing one. Large estates in this country and in England will have to be surrendered in part for agricultural purposes, for the food question is a monster whose maws will not be stopped. Food, food, food, or cannibalism pure and simple will be the order of the day in a future generation if the conditions of the tenure of land should not be altered for the common weal.

We preach no Utopian scheme, no visionary doctrine—our conclusions are warranted by fact, and are capable of scientific proof.

Our waste lands will in time have to surrender to the sway of an army of pioneers, engineers, and scientific labourers; bog and morass must be drained, and the element of the newt, the eel, and the frog, given back to agriculture. If Ireland remains a dependency of England, these things must take place much sooner than otherwise; but in any case this will eventually take place.

Let the nobility, gentry and gentlemen farmers of Ireland take counsel and action, and preserve what abled-bodied material in flesh and blood that still remains upon the soil. The voice is gone forth, the tocsin is sounded, and it is useless to procrastinate. The condition of the Irish agricultural labourer must be improved, for it is morally impossible to expect that it can remain in its present state. While all the world is on the march, heaven forbid that a dark spot should remain stamped upon the soul of this island.

THOUGHTS DERIVED FROM A SUBJECT IN OUR LAST.

WE have received numerous letters relative to some remarks of ours upon the manner in which sinking for foundations is occasionally described in architects' specifications. It would occupy by far too much of our space to publish the entire of this correspondence, and we have, therefore, unwillingly been compelled to select but three, which we give in our present number. Amongst those which we do not publish are some which appear to convey the idea that, first, we are meddling in matters which are not the province of a publication like ours; second, that questions like this should more properly be decided between the architect and builder; and, third, that all contractors signing agreements where this clause occurs are fully aware of the consequences, and that they always provide for it by an item under the head of "contingencies." With regard to No. 1, we reply that the well-being of all who are in connection with building has been our study from the commencement, and although some shortcomings may be laid to our charge, we are performing the duty we owe without distinction to all our supporters, and in this we flatter ourselves we have to some extent succeeded. No. 2 can hardly be decided between architects and builders as individuals; as the question does not arise in all cases, it requires the attention of all to be directed to it. No. 3, that builders can provide for an item (which occasionally occurs of some magnitude) under the head of "contingencies," is hardly practicable, more particularly in cases of competition; if one does so, another who prefers running a chance will not, in which case the latter is sure of being declared contractor.

The general tenor of several of our correspondents' communications advises us of the absolute necessity incumbent upon architects to provide against extras, while they dwell upon the numerous difficulties they experience from this source. We have no doubt whatever upon the subject, and we also well know, as a letter which appears in another page informs us, that there are builders who take contracts solely with the view of making extras pay for the reduced price they have undertaken the works at. But additional foundations, although they must be denominated extras, do not properly come under that heading, because there is no impossibility in ascertaining beforehand not alone their probable, but what will be their actual cost; and, supposing for argument's sake this is considered too troublesome, why not provide by the contract for every additional foot that is possible to occur? That the builder who intends acting in a straightforward manner should suffer from this cause, is certainly an anomaly which we are convinced all right-

thinking people will agree with us in saying should no longer exist.

We have entered at greater length on this subject than possibly we intended at the outset; but this we have no reason to regret, because the correspondence produced by our previous remarks has enabled us to ascertain that the clause in specifications which declares "that the trenches for foundation walls shall be sunk to such depth as will ensure a solid stratum" (without providing for the additional cost thereof), only exists as part of a system of antiquated usages not generally approved of, and which, in our opinion, should long since have become obsolete, but we are happy to say many of them are altogether ignored by the more rising junior members of the profession.

BOOKS RECEIVED.

Drawing for Bricklayers: the Constructive Principles of Brickwork, &c. With illustrations. By Ellis A. Davidson. London: Cussell, Petter, and Galpin.

We have carefully looked over this little technical manual, and we are able to pronounce it in many particulars a useful rudimentary volume. The young and inexperienced apprentice or workman will be helped by its perusal, and those unconnected with the profession will find information which it will not be amiss for them to know.

Having said this much, we must at the same time add that there are many wants not to be found in the volume, some errors, and that the volume, even though a rudimentary one, does not carry the subject far enough. Some of Mr. Davidson's former cognate manuals, though also very useful, are deficient, and he cannot be offended, if he is a man of the world, and a practical one, at being told so. Example teaches and practice improves, so we would recommend the editor of these manuals in connection with the building trades, when a reprint or new edition is demanded, to revise all the volumes with the assistance of a practical architect and engineer, and in no manner to overlook the advice and assistance of operative foremen and intelligent artisans. It is by consulting those who are working men, and engaged on actual works, or have been engaged, that much information may be obtained which no published treatise heretofore can supply.

This manual under notice treats on the varieties of brick, brick and tile paving, the manner of laying bricks, foundations, footings, bonds, &c., and it gives examples for the student, in drawings in connection with brickwork, linear drawing, freehand drawing, drawing from solid models, plan drawing, &c. There is a variety of information given in a condensed form, and some of the plates are simple and clear.

The subject, as we have already said, requires to be carried farther to make it really useful to the bricklayer or mason, who very often becomes a foreman and eventually an employer. A companion or supplementary volume will be necessary, as many things are here omitted.

We have no examples of skew or oblique arches in brickwork, chimneys and their construction (which are of a variable character), and also in relation to flues; nothing about domes or cupolas in brickwork, ornamental brickwork, brick mouldings, brick groins or columns, the construction of furnaces, hot-houses, forcing-houses, or brick construction in connection with gardening purposes; no sections or drawings of oblique openings in brickwork for doors and windows, or circular openings wider at the front than back, or *vice versa*. We have none of all these useful matters in the volume.

The volume would also be greatly improved if there was a short chapter on practical geometry as applied to the different forms of brickwork, and examples and demonstrations.

given, including a series of useful "lines," and how they are developed. As helps to the young bricklayer for "setting out" his own work, they would be invaluable.

In his "Preliminary Observations," in speaking about the columns of Venice being built of bricks, the author falls into an error in mentioning his authority. It was not Sir Henry Walton, but Sir Henry Wotton.

In future editions or reprints there can be much improvement effected in Messrs. Cassell's "Technical Manuals." Their design and object is good and commendable, and it would be a pity that the works, even though rudimentary, were not made as perfect, and as useful, and as reliable as possible. We speak in the interest of those whose wants we thoroughly know, and also we speak from a practical knowledge ourselves of the architectural and building matters treated upon in these manuals. Having a sincere desire to see our workmen technically educated, we are doubly anxious that the books placed in their hands will be really useful to their students.

THE DUTY OF PRESERVING NATIONAL MONUMENTS.*

THE subject on which I propose offering some remarks commends itself to the attention of the educated people of every country, no matter how recent its origin or scanty its history. How much more interest should the cultured classes in these lands take in this matter, where there are historic records and monuments carrying us back with clear and defined steps well nigh two thousand years, and beyond that, pre-historic remains leading us still further back with a feebler light for possibly several thousands more.

A nation's life may be said to be recorded in its monuments—using the word in the widest sense to include everything bearing the impress of man's hand and brain. The weapons, tools, ornaments, and utensils of the earliest inhabitants who raised the earthen raths and duns upon our hillsides and piled the funeral cairns upon the mountain tops, the bronze and gold relics of the following age, and the early Christian examples of art-work in metals and wood, and the illuminated manuscripts which succeed to these, have all a value of their own as embalming some of the life and history of the races who fashioned or used them. Splendid and well-arranged collections of these *moveable antiques* are to be found in many of our towns, besides what may be styled the great national collections in London, Dublin, and Edinburgh, and a very respectable collection has been formed in this building of our own. But your attention to-night is to be directed to quite a different class of historic relics than these, and having a somewhat different and a larger value for the historian, arising from the fact of their being attached to the soil—some, indeed, of the most interesting and earliest type formed of the very soil itself, but each being correctly styled a building—something *set up or made fast* at a particular spot, and its value arising mainly from its connexion with that place and no other. All the earth-works of our own island, which are variously known as duns, raths, lises, forts or moats, are more numerous still than in any other country in Europe. The cromleacs, menhirs, and rude stone circles of the earliest times, the round towers, sculptured crosses, anchorite cells, and churches and castles from the sixth to the fifteenth century would all be included in this category as historical monuments. Without going the length of saying that the destruction of any one of the thousands of monuments thus referred to would be a serious national loss, it would be a perfectly correct statement as applied to the destruction of a number of the same class, as of the round towers or the earliest churches or stone-roofed cells, or again as applied to the case of a monument which is unique or very rare, as our Giant's Ring at Drumbo, or the great raths at Downpatrick and Moylena

near Autrim, both of which are intimately associated with early Irish records of the greatest interest.

To take an illustration from what has occurred in our own neighbourhood within the last generation. The destruction of Trummery Round Tower was a national loss, as from the drawings which represent its aspect some thirty years ago it seems to have been of quite a peculiar type, the only other tower then resembling it being at Dungiven, County Derry; but this, sad to tell, has also been swept away: both might have been saved by care.

Not far from Trummery, but on the south side of the town of Moira, there stood, on the edge of the chalk cliff which here overhangs the Lagan, a very fine mound enclosed by several rings—in fact, it was the Moy-rath (*Moira*) which gave its name to the district, and to the famous battle in which Comgall was slain. The levelling of this some years ago by the tenant of the lands in which it stood, did not possibly create much indignation in the neighbourhood; still it was an outrage, and a loss which will be felt more and more as education spreads and a better taste prevails.

The modern school of farmers, and more especially those who have lately migrated from Scotland, with their desire for level ground for their sowing and reaping, are very much inclined to clear off all protuberances, whether pre-historic or recent, and grub up and cart away, or, what equally offends the archaeologist, bury in a deeply-dug pit the standing-stone or cromleac that interrupts the even tenor of his patent plough. To men of this type there is no appeal except through their pockets; but, fortunately for modern antiquarians, it was very different with the old Irish farmer, who had both superstitions and sentiments, the one making him dread the vengeance of the "little folk" if he put a spade into the old rath, and the other causing him to respect the ruined chapel or wayside cross which was from childhood associated with his religious ideas.

Whilst these sentiments are rapidly losing their hold all over the country, it is much to be wished that more correct notions of the real value to the community of these remains should be implanted in their stead. Why should there not be brief notices of the principal antiquities of our country placed in the books of lessons for the National Schools of the three kingdoms? and along with this could there not be some instruction in this subject given to the teachers both at the head training establishments and in the Model Schools by a properly-qualified professor? If this were done (and there really seems no good reason why it should not be), a very few years would bring about a marked improvement in the feeling of the lower classes towards these objects. If the constabulary also received some general instructions with regard to the historic antiquities of the districts where they are quartered, they might render very important services; but this may rather be looked on as a part of the intended governmental interference to which allusion will be made hereafter.

That there may be no doubt whatever but that there is an urgent need for some public action to preserve what is still left us of our national monuments, the following facts as to the injury and destruction that is going on in various parts of the three kingdoms may be fairly assumed as representing generally the state of things everywhere. To begin with England. The Jews' House in Lincoln is threatened with destruction: it is one of the very few specimens of domestic architecture of the twelfth century now extant; and a recent writer calling on the dean and chapter, whose property it is, to preserve it, very truthfully says, "in an artistic and archaeological way it is as valuable as the cathedral itself." At the meeting of the Somerset Archaeological Society last autumn, Dr. Freeman, the president, lamented the way in which the fine old manor house and parsonages of that county were being destroyed. To quote his own words, "many of these stone houses of the 15th century are

among the most precious that remain, altho' least understood or valued." "The wanton havoc that has been wrought within the last ten years in the one city of Wells is enough to make us tremble for the buildings which have still been spared there and elsewhere. It will be something if we can awaken in the public mind enough of care for these things to save what is still left to us."

Then as regards an earlier class of remains, though not pre-historic, I find at this same meeting attention was called to the way in which the fine Roman camp at Bomer's walls, opposite Clifton Down, was being gradually destroyed. It was stated that soon every trace of the Roman occupation would be gone unless a stop was put to the quarrying. But the loss here is as nothing compared to what was recently threatened to the world-famous Avebury mound in Wiltshire, perhaps the finest pre-historic relic in Europe. After suffering a long series of dilapidations on the part of the adjoining farmers, who used it as a quarry, it was lately proposed to build houses on the inner amphitheatre, and had it not been for the great liberality and promptitude of Sir John Lubbock in at once purchasing the whole ground, this inestimable relic of early English history might have been lost for ever. An elegant writer in the *London Telegraph* makes this comment on the transaction:—"Thanks to the liberal and intelligent banker, we have escaped the scandal and loss of beholding a page torn from the annals of our land, which never could have been replaced, although the Wiltshire proprietors had sold every flock between Marlborough and Salisbury for its purchase."

Turn now to Scotland, and take an instance of what occurred in November, 1867, a few miles from Glasgow, its commercial capital. I quote from a letter in the *Builder* of that date, which so admirably expresses the natural feeling of indignation at the removal of ancient *land and history* marks, and shows so well why their chief value depends on their remaining *in situ*, that I give it verbatim:—

"I want to enter an indignant protest against the sale of an inscribed stone from the Roman Wall (near Castlecary) to the American consul at Newcastle. Why should a Portland cement cast be taken for the old castle at Newcastle, whilst he carries off the original? When he has removed it to the United States, it becomes merely an object of antiquarian interest; but whilst it remained *in situ*, about eight miles from Glasgow, in the wall of Antoninus Pius, recording the erection of 3,000 paces, it was such an invaluable portion of irrefragable history that the surrounding inhabitants ought to have felt too proud of having had it bequeathed to them, to have ever allowed it to pass out of their hands. By whose permission was this inscribed stone taken out of the wall and delivered over to Professor McCheaney? It would be wiser to take some Roman monument out of one of our museums and give it to the professor. This may seem a barbarous suggestion, but it is not half so barbarous as parting with this link from the chain of our national history. I am quite furious about it."

Nor are things any better in the extreme North, as will be seen by an exceedingly interesting and recent notice of the ruined churches of Orkney and Shetland, by Sir Henry Dryden. These were nearly all of Norwegian origin, but since the Reformation period they have been suffered to fall into the most extreme dilapidation, many having fallen within the last twenty years, simply for want of a little mortar judiciously applied here and there.

From Sir Henry's description, these churches bear such a striking resemblance to those of the earliest type in Ireland, that there cannot be a doubt but there is here a proof of the missionary zeal of the primitive Irish church, and the total loss of these records would be indeed deplorable. Is it too late to save some?

(To be continued.)

* By Mr. Robert Young, C.E. Read at meeting of the Natural History and Philosophical Society, Belfast.

THE ORDNANCE SURVEY OF DUBLIN.

WHAT the Ordnance Survey has been doing for Dublin of late years, we are not in position at the present moment for saying. Dublin, we know, is increasing in size to a greater extent than many imagine, and it is highly necessary that the plans, maps, and the survey as a whole should be kept up as complete as possible. Any one wishing to compare the size of the city of Dublin in the beginning of the 17th, 18th, or 19th century with what it is at present, will find an interesting labour in doing so by procuring Speed's Map published in 1610, that by Rocque in 1762, and that by Wilson in 1798-1800. Any of these maps compared one with another, and then a comparison of them all with our present map of Dublin, will afford much insight and information as to the growth of the city of Dublin.

At the present time we want enlarged plans and maps of the county and city, and a constant revision is needed at stated and short intervals. From the report of the progress of the Ordnance Survey for the past year we learn that the plans of London, on the scale of sixty inches to a mile are now complete. They are drawn on 326 full-sized sheets of paper, and probably form the largest and most complete plan of a city ever produced. Of these plans 144 sheets have been engraved and published, and the remainder are in progress. The continual increase in the size of London and the alterations constantly made in it are so great as to make it highly desirable that arrangements should be made for an almost constant revision of the plans. This has been represented to the Metropolitan Board of Works, and the board in reply state that there are no funds legally applicable to this service; but they fully appreciate the importance of keeping the survey always complete.

The Corporation of Dublin ought also to appreciate the importance of having the survey of this city complete. Independent of them, however, in an educational sense it is very necessary that the growth of our cities and towns should be duly made known by the issue of carefully and well-prepared surveys.

NOTES ON EARLY GARDENING IN IRELAND. THIRD PART.

THE commencement of the eighteenth century was signalled in several places throughout the island by some creditable attempts at modern gardening. We might cite many instances worthy of record, but must limit ourselves to a few allusions. One of the first of these, though on a small scale, was made by Dr. Delany, the friend and companion of Swift, at Delville, near Glasnevin. The witty dean has left us a humorous description of these gardens in verse, but has managed to contract them to characteristic lilliputian dimensions. These gardens, long continued an attraction. The Botanic Gardens of Glasnevin are but the sequel of Delany's first attempts; for, in these shades on the Tolka's banks have walked and conversed, poets, politicians, dramatists, judges, clergymen, and philosophers who once moved the world, and whose genius still moves it. At Harristown, one of the seats of the once famous Eustace family, ornamental gardening and other embellishments were carried out to a great extent early in, and even previous to the beginning of, the eighteenth century. An elevated terrace in front of the mansion commanded a view of the lake, which was an extensive one, skirted with wood. Swans and other aquatic birds were to be seen, and a ship, completely rigged, floated for purposes of pleasure. The woods were extensive and full of game of various kinds; and walks, avenues, and bowers intersected them in different directions. The gardens were well stocked with all kinds of fruits common to the climate. It was usual for parties to drive from the city to visit this famous seat and grounds, but long before the close of the

eighteenth century the woods had disappeared, the lake became a morass, the gardens ploughed fields, the mansion a ruin, with scarcely one stone standing upon another, the great family all but extinct, their last descendant in penury, the lands passed into the hands of new masters, and not one acre of the princely possessions remaining in the hands of the descendants of the original owners.

The singular and eccentric, but most hospitable character, Mr. Thomas Mathews, of Thomastown, County Tipperary, some account of whose life may be found in Sheridan's (Thomas) *Life of Swift*. During Swift's time, Mathews resolved on building a very large house for the purpose of receiving his numerous guests. It was surrounded with fifteen hundred acres of ground, laid out with the latest improvements at that time. The new English mode of gardening was adopted, and Mathews was one of the first, we are told, who set the example in Ireland of superseding the bad Dublin taste introduced into this kingdom by King William's followers. The improvements developed by Mathews were said to have eclipsed all similar attempts of the kind, even in England, in point of beauty and extent. He formed the design for carrying out this improvement early in life, and to accomplish his desire without incurring any debt on his estate, he retired to the Continent for seven years, living upon £600 a year, the remaining income being devoted in carrying out the many improvements he had planned. On his return to Ireland, the remainder of Mathew's life was spent upon his estate, and the accounts we have of his princely hospitality are extraordinary for their extent and range.

It appears by Sir Hans Sloane's *Voyage to Madeira, Barbadoes, St. Christopher, and Jamaica*, that we are indebted to Sir Arthur Rawdon, a member of the Moira nobility, for the introduction of a great many flowering plants and trees. Perceiving what had been achieved by Sir Hans Sloane, Sir Arthur Rawdon sent out to the above-named islands Mr. James Harlow, a gardener, to bring home a number of "live plants." Mr. Harlow, who had previously been employed on a similar errand to Virginia, was successful in bringing home "a ship almost laden with cases of trees and herbs planted and growing in earth, but also a great number of samples of them very well preserved in paper."

Mr. Walker says in his notes, that he was informed by the Earl of Moira that this Mr. Harlow built a large stove at Moira, by order of Sir Arthur Rawdon, for his Jamaica plants. Here we see that native enterprise helped in no inconsiderable way in developing a love of flowers and gardening, and that we share in the honour usually given to the Huguenot settlers of Dublin.

It is not generally known that we are indebted to the labour of Patrick Browne, M.D., a native of Mayo, for a catalogue of some Irish plants common to the West of Ireland, and also an account of foreign plants, in his *Civil and Natural History of Jamaica*, which he composed while residing in that island.

In the preface of Dr. Browne's work he says, "Sir Hans Sloane hath not collected above 800 species of plants in all his travels. In Jamaica alone I have examined and described about 1,200, besides fossils, insects, and other productions, of many of which he makes no mention. It must be owned, nevertheless to his praise, that his works, inaccurate as they are upon the whole, have done both the author and his country credit." Sir Hans Sloane was a native of this country as well as Browne, and his world-wide labours ought to be more generally known. As an eminent physician and naturalist, President of the English College of Physicians, holding a similar post of honour in the Royal Society, which he obtained on the death of Newton, he must be remembered. The Sloane collection—which forms a valuable cabinet of curiosities—were purchased by the parliament for £20,000. It forms the foundation of the present

British Museum. The above sum did not represent a fourth part of its value. Dr. Browne left some MSS. at his death, among which are "A Catalogue of the Plants growing in the Sugar Islands, &c., classed and described according to the Linnæan system," sent to Sir John Banks. "Fasciculus Plantarum Hiberniæ," or a catalogue of such Irish plants as have been observed by the author, chiefly those of the counties Mayo and Galway, to which he has added such as have been mentioned by other authors worthy of credit, the produce of any other part of the kingdom. This MS. treatise contains 110 pages, 8vo, written in Latin, with the *English* and *Irish* names. We are under the impression that some of our would-be compilers of a "Flora Hibernica" have been profiting before now by the labours of Dr. Browne, whose many contributions to natural history are scarcely known at the present day. Those who may desire to cultivate an acquaintance with some of Dr. Browne's serial contributions, will find a short essay of his—"A Catalogue of the Birds of Ireland," natives, casual visitors, or birds of passage, in *Ershaw's Gentleman's and London Magazine* for June, 1774. In the same magazine for the month of August, will be found "A Catalogue of Fishes" observed upon on Irish coasts and rivers. Dr. Browne's catalogue of plants of the north-west counties of Ireland contains above seven hundred plants, mostly observed by himself. It is a pity that the little tract has never been printed, at least to our knowledge.

It will be perceived from what we have above stated, that we owe the introduction and wider knowledge respecting many rare and exotic plants to the industry and travel of Sir Hans Sloane, Dr. Patrick Browne, and a few noblemen and gentlemen in the kingdom who followed the example set to them by Sir Arthur Rawdon in the North of Ireland. In the matter of apple, cherry, and nut orchards, Ireland cannot show such an array as England, though we have had a few remarkable ones scattered here and there through the country. In the southern and south-western counties of England, there are many acres covered with apple orchards, and the manufacture of cider takes place as a matter of custom, to a wide extent, supplying to many homes a healthy beverage. Cider is given in the hay-making and harvest times to the labourers. Its place is supplied, on a like occasion, in Ireland by buttermilk by the farmers, and even that poor beverage is nowise general.

The instances of fantastic gardening mentioned in our former paper, where rock work, grotto work, hanging garden terraces, heathen deities, and other extravagances were pressed into service, was but an imitation of mere gigantic eccentricities common to England in the eighteenth century. Speaking of "Architecture and Gardening" in England, a recent writer in the *Builder* writes, "The extravagances of some of the eighteenth-century poets in England were imitated in Ireland and Scotland; and Hales Owen, in Shropshire, the seat of Shenstone, was the model that many of our eccentric grotto and garden mad innovators followed. Nymphs, syrens, centaurs, phoenixes, antediluvian beasts and birds, and other nondescript and extinct mammals, mollusca, fossils, and petrifications were pressed into service, with twisted snake fountains, and twisted trees, and surrounding alcoves, and gods and goddesses doing penance in their nudity. This gardening monomania continued down to the beginning of the present century, until sober architectural sense stepped in and put a fiat upon it."

Dublin has always been famous for nurseries, which have more or less existed since Queen Anne's days, but did not assume any large dimensions until near the close of the eighteenth century. It was not until the modern appliances of the present century in connection with stoves, hot-houses, conservatories, and their improved *build*, warming, ventilation, and aspect, were considered, that gardening took its proper place. Before the

close of the last century, however, we had some noblemen and gentlemen, as well as professional gardeners, who paid great attention to the beautifying of their seats and gardens. Among these may be mentioned Lord Charlemont at Marino, the Duke of Leinster at Carton, and the gardens and seats of Castletown, Curraghmore, and St. Woolstan's. The Earl of Moira's splendid gardens and plantations in the County of Down were remarkable, near to the close of the last century. The seat of Sir William Gléadowe Newcomen, a Dublin banker, at Killester; Belcamp, the seat of the Hon. Francis Hutchinson; Clontarf Castle, the seat of Mr. Vernon; Hollypark, the seat of Mr. Jeffry Foot; Mr. Latouche's (the banker) seat at Marlay; a seat at Stillorgan, once in the possession of a Mr. Legget; the Viceregal Lodge in the Phoenix Park; Woodlands, formerly Luttrellstown, the seat of Luke White. These and a few more seats in the neighbourhood of the County Dublin showed much improvement at the end of the last and in the beginning of the present century. Since that time, however, all their owners have not displayed the same improving spirit either in their gardens or plantations.

The first Earl of Charlemont, at Marino, showed a highly cultivated taste both in gardening and architecture, and employed Sir William Chambers to carry out some architectural works for him thereat. The building in the lawn called the Casino or Temple, was one of these carried out ('tis said) according to some Grecian models met by his lordship in his foreign travels.

In the following places, some improvements in the grounds and gardens were to be seen, but the seats were inferior to the ones we have above noticed:—Curduff, Terenure (once a great resort for the citizens), Milltown, Drumcondra, Mount Sackville, Kilmacud, Lissen Hall, Turvey, Seafield, Portfield, Diswellstown, Broomfield, Bushy Park, and some few others of lesser note.

Designing garden fronts to noblemen's and gentlemen's dwellings was practised in England from the days of Inigo Jones, who appears to have designed many such fronts to houses, which had already been erected. In Ireland, as well as England, we have some old mansions with double fronts—the ordinary one, and the one looking into the gardens. Architects during the eighteenth century in Ireland were very few, at least ones of note; so we find very little evidence of their attention being turned towards designing, with a view to gardening purposes and ornamentation. In England, Inigo Jones, Webb, Sir John Vanbrugh, Sir Christopher Wren, Nash, Colin Campbell, Sir William Chambers, and others, paid some attention to gardening wants in connection with many of the buildings thus designed or improved. We are not aware that James Gandon, Thomas Cooley, Thomas Ivory, or even Francis Johnston, whose practice belonged to both the last and the present century, paid any attention to gardening purposes, or associated their works with gardening aims or ends. Most of their works were connected with public institutions, and they were consequently precluded from taking into view the effect of landscape or garden, or the effect or harmony that might be created by judicious improvements in lawn and garden in connection with a building and its aspect and style. John Aheron, an Irish architect, who practised in the middle of the eighteenth century, designed many buildings for landed proprietors, noblemen, and gentlemen, and Richard Castles was also employed by some Irish gentlemen and noblemen, and erected several buildings—some for Sir Gustavus Hume, in Fermanagh, and others for the Duke of Leinster at Carton and at other places. These were country mansions, and in connection we find subsequently that there were well laid out grounds and gardens. Both in connection with the mansions designed by Aheron, Castles, and Ducart (an Italian architect, who practised in Ireland in the last century), we find improved seats, gardens, lakes, and other embellishments.

Sir Richard Morrison, whose practice extended back into the last century, exhibited in his designs a care also in laying out the grounds attached; but his remarkable son, whose life was cut short in its prime, showed extraordinary attention in every detail bearing upon his works. Like the elder Pugin, he ambitioned to do everything in connection, and have everything original and in harmony—stairs, ceilings, mantle-pieces, plaster ornaments, furniture, and the grounds without and gardens. The designs of the younger Morrison were mostly all in the Tudor style, or a combination of it. The labours of the younger Morrison, however, belong to the present century.

With the advent of James Gandon and his contemporaries Cooley and Ivory, architecture in Ireland began to look up, and after their deaths their places were worthily filled by Francis Johnston and the Morrisons. Some able architects succeeded them, but their labours belong to our time, and it is not our purpose here to trace how far they associated gardening with architecture; some of them, we believe, have not forgotten the charms of nature while dealing with the dry details of their art.

There are still some matters of interest and importance left untouched by us bearing upon the subject of gardening. As these points can be best dealt with together, we will postpone their consideration for another paper. Among these may be mentioned the opening of public parks and squares, the more general cultivation of trees and flowers, window-gardening in towns and cities, the sanitary and moral influences of gardening, the province of the architect in relation thereto, together with some late instances in this country, on a grand scale, where art and science have been judiciously employed in harmonious association with nature in horticultural and human improvement.

DUBLINIENSIS.

THE ADMINISTRATION OF SANITARY LAWS.

OUR contemporary, the *Builder*, in a recent issue, gave a very useful digest of the several sanitary enactments, not only from the passing of the first Public Health Bill proposed, but of the early legislative measures in operation in these kingdoms. The article gives a comprehensive sketch of sanitary progress, and points out the special requirements needed in the new Public Health Bill brought in by Mr. Stansfield. We have, ourselves, drawn attention already to the deficiency of the new measure, and of the necessity there exists for defining the duties clearly in relation to sanitary administration. As we said before, it is not a mere medical question, but it is a great engineering question, for it involves the providing of a water supply, the non-pollution of rivers, system of drainage, sewerage and consequent irrigation measures, all of which lead to the prevention of disease and of adding to the material and moral prosperity of the nation.

On the 8th ult., large and important deputations waited upon Mr. Stansfield at Gwydyr House, Whitehall, to call his attention on behalf of three associations, to various points in connection with the Public Health Bill now before Parliament, and to suggest amendments, which represented the British Medical Association, the Poor Law Medical Officers' Association, and the Social Science Association.

Dr. A. P. Stewart (on behalf of the joint committee on state medicine of the British Medical Association and the Social Science Association) read a memorial drawing attention to the evidence given before the Royal Sanitary Commission, which, however injuriously restricted as to the area and scope of its investigations, made some valuable suggestions, especially with regard to the necessity of having all sanitary matters entrusted to the supervision of one responsible minister, clothed with full powers to enforce the execution of the laws, which, being revised and consolidated, should be made compulsory throughout the kingdom. The memorial entered fully into the subject, and urged that

the President of the Local Government Board should introduce such amendments into the Public Health Bill as would provide that, in lieu of the division of local authorities into urban and rural, there shall be one local authority, under one law, in each sanitary district; that there shall be a high-class sanitary authority in each district, subject to the central authority; that there shall be one or more chief officers of health for each district, giving their whole time to their duties, and that medical officers appointed by the local authorities shall be the deputies to the chief officers, and be responsible directly to them; that the sickness returns be passed through the hands of the chief medical officer; and that a moiety of the expense of medical and scientific officers under this bill be borne by the national exchequer.

Dr. Rumsey, of Cheltenham, on behalf of the British Medical Association, stated that neither that body nor the other associations there represented attended in any hostile spirit, but they, on the other hand, regarded the measure as a valuable one, and they desired to assist the President by suggesting improvements. The speaker, on behalf of the medical body, declared that their object was only that pursued by the profession hitherto in promoting public health. They had seen in this bill that there was no sufficient change or modification of the machinery adopted by the Public Health Act of 1848, a machinery which was found utterly inadequate for its purpose, and the fundamental defect was the absence of a national council of public health, composed, as in some continental states, of specially qualified persons. Then it was held that the local machinery proposed by the bill was complex and inadequate, and he urged there was a want of an extensive unit of area to secure good government and to prevent a duplication of authority. As to this duplication of authority, as at present existing, and as perpetuated by the bill, he spoke at some length, and urged that the isolation of urban and rural authorities for sanitary purposes would be found to work most disadvantageously, as they were constituted irrespective of drainage areas. He also pointed out that there was a different class of authorities in urban districts to carry out duties which were otherwise carried out in rural districts, and he urged that this should be remedied.

Mr. Michael, Dr. A. P. Stewart, Mr. Chadwick, C.B., Dr. Rogers, and Mr. Ernest Hart also addressed the President on various points.

Mr. Stansfield, in reply, entered into a discussion with those present, and said that some of the points put before him he would consider, and communicate respecting them with the gentlemen who had spoken. He said there was more in the bill than appeared on the face of it, for he had taken powers that districts should be united, and he was not in favour of multiplying petty authorities, as the deputation seemed to think the bill proposed. He differed from the deputation with regard to there being a central authority in each district, for he thought that by an intervening power such as this there would be entailed much cost. He allowed that he did not look to make the law perfect by this bill, and he thought that much which the deputation sought would be covered by the powers which the central authority would gain by the passing of this measure, for by means of those powers, measures which had not been enforced could be pressed, by judicious inspectors of the central authority, to a satisfactory conclusion. He said it was his intention to make some alterations in the bill, to show some purposes more distinctly, and he would consider the others put before him.

If the engineering question is lost sight of in detail, the consequence will be that local boards, in their efforts to keep clear from polluting rivers, will commit graver mistakes. Towns may become nurseries of disease with bodies of uninformed men, if the sewage is allowed to be spurted away in any manner that may be deemed best for the moment. Though we may not be able to legislate for posterity in many ways, yet in the matter of drainage and water supply, we can, with sober reason, look before us for a long, long time, and save posterity from the danger of frightful evil. Population is growing apace, towns are increasing, and they do not or will not always exist under the same conditions. We can, if we will it, and there is sufficient professional skill in the country to carry out a broad and comprehensive system of water supply and sewerage for the entire three kingdoms, which would confer an honour on us as a people, and be a source of endless blessing to our latest posterity. If these provisions are neglected in our time, our children's children and our race will suffer for our sins of omission and commission.

THE BOARD OF WORKS IN IRELAND.

In the House of Commons on Monday night, Mr. Synan asked the First Lord of the Treasury whether there would be any objection to produce and lay upon the table of this House the report of the Treasury Commissioners, mentioned by the Secretary to the Treasury, in relation to the Board of Public Works (Ireland), as soon as it is returned by the said Board to the Treasury, and before there is any conclusive and final step taken thereon; and whether it has been decided to appoint one of the Treasury Commissioners one of the Commissioners of Public Works in Ireland. Mr. Baxter said it would be objectionable to lay upon the table of this House the report of the Treasury Commissioners on the Board of Public Works (Ireland) before the recommendation of the report has been considered and dealt with by the Treasury. No such decision has been come to as that to which the hon. member refers in the second part of his question. Despite the answer given by Mr. Baxter, we have reason for believing that certain gentlemen were nominated for the office in the Board of Works, Dublin. Certain individuals have talked in such a manner as to warrant the suspicion that they held their appointments already in their pockets long before the government was inclined to publicly announce their foregone conclusions. Whether the government slept too long, and a march was stolen upon them, we will not say. It is not unlikely, however, we will be favoured with a considerable modification in the contemplated arrangement, whereby a rank injustice was about to be perpetrated.

DISPLACEMENT OF THE WORKING CLASSES BY IMPROVEMENTS.

THE present moment is opportune for drawing attention to matters which will be the direct consequence of railway accommodation and extension in course of time in the City of Dublin. Whatever railway scheme for Dublin may be adopted, numerous houses must come down, and there are other improvements connected with the city which will also lead, in time, to the displacement of the homes of the poor in quarters where rents are low.

So much misery and hardship have been caused in London of late years, by railway extension, and also by improvements on the part of the Metropolitan Board of Works, that it has at last been found necessary to counteract the evil. In respect to the Metropolitan Board, a Parliamentary Committee has recommended that the board should obtain power to allow provisions to be made for house accommodation for the working classes who might be dispossessed by the proposed improvements. This is being done. Dublin, of course, in extent bears no comparison with the great area of London; still this city would proportionately suffer by any sweeping removal of the homes and haunts of the working classes, and it behoves us to see that some steps may be taken beforehand, that the people likely to be dispossessed will be fairly provided for. No extensive demolition of house property interfering with the accommodation of the poor should be allowed, without a provision being made beforehand for those who will suffer by removal. Railway companies and corporate bodies particularly, must be compelled to provide means. No railway should be allowed to be commenced until the directors entered into terms with the city for meeting the want their project will create. Some London companies have already, we believe, agreed to provide that new dwellings to a certain extent shall be erected, and that they will also afford room for such erections beside the line of their new route. It is the duty of the Government, in the first instance, and secondly, as local rulers, it is the duty of the Corporation to see that fitting house accommodation will be found for the poor. Where this duty has been neglected,

poor districts with lanes, courts, and back streets, already overcrowded, have had to be resorted to by the working poor, and disease, fever, and small-pox, to a frightful extent, have been the consequence. What has taken place in London may also take place in Dublin, if a consideration in time is not given to the subject. Already in this city, sanitary neglect has brought on many dire evils, and, at the present moment, there are numerous unclean "rookeries" that it would be a mercy to sweep away from the face of the land if other accommodation were to be had.

In any new class of workmen's or decent dwellings that may be erected hereafter on the part of railways or public companies consequent on improvements, the working classes must come in for first consideration. The common right known to the law is theirs, and that right is pre-emption, or the right of purchasing or renting before others. We hope these few words of ours will receive due attention on the part of those who ought to feel interested. We feel we are performing a duty in directing attention to the matter in time, and to be forewarned is to be forearmed.

CIVIC LYRICS.—No. XII.

NUMBER ONE.

There are more *Jacks* than one in the field;
Some are knighted, but none benighted—
Six of one and half-a-dozen of the other.
—Shakespeare (emended).

There's one commandment kept very well,
Though not in the Decalogue;
'Tis better than any, some wise folks tell,
Of the ten that are in vogue.
When you're elected to office, mind
And think of your father's son,
Nor leave your poor relations behind;
Oh, "Remember Number One."

Town Councillors, sure, are only men,
And Aldermen just the same;
We know they only take office when
They desire an honest name.
Lord Mayors, *de facto* and defunct,
Are honourable, *pro et con*;
'Tis their kindly feeling and adjunct
To "Remember Number One."

Keep never minding what baronets
Or Knights of the Quill express;
They are often caught in their own nets,
And wriggle in great distress.
They never would do a "dirty thing,"
Nor wink at it going on;
Yet birds of a feather upon the wing
Will "Remember Number One."

Long live our Corporate body, which
Can show us such clear accounts—
The people's darling, both poor and rich,
Despising all small amounts.
Due honour to all this "precious lot,"
Who make it a *sine qua non*
Of office, that they will not be forgot
In respect to—Number One.

CRVLS.

THE IRISH EXHIBITION.

WE will probably in our next issue enter into some details in general and particular respecting the preparatory work now being completed at the Exhibition building. We will offer some observations to the city and the country on some interests overlooked, yet of vital importance to the welfare of a permanent Exhibition of Irish Arts, Industries, and Manufactures. To stand upon stable ground it is best always that the true state of our efforts should be placed before the country and Europe, that no wrong conclusions may be drawn concerning what has been done in this city, and what has not been done, in laying the foundation of a permanent exhibition. How far our national show is entitled to commendation will be seen hereafter when a faithful representation of its contents and surroundings is given. We have not ourselves met with any fair account in the press of this city, that can be accepted as a reliable statement, much less have we met with any practical suggestions or advocacy in the cause of native interests outside mere circular sailing essays devoted to the benefit of the few instead of the general

benefit of the many. No amount of eulogy or self congratulation will effect a permanent good where principles are weak and fallacies are supported instead of facts. However disheartening it may be to be shown our shortcomings, it is infinitely preferable to be told of our defects by friends, than to be found out in our palpable errors by strangers. We cannot bolster up illusions by any honest process. If we cannot stand erect on our own merits, let us creep on a while longer like the child, until our limbs grow stronger, and then our attempts will be more certain of success.

As Ireland's capacity will by strangers to a certain extent be measured by the standard that this exhibition furnishes, we would have been better pleased if the response had been greater, and if certain matters in connection could be forgotten, or rather had never been heard of.

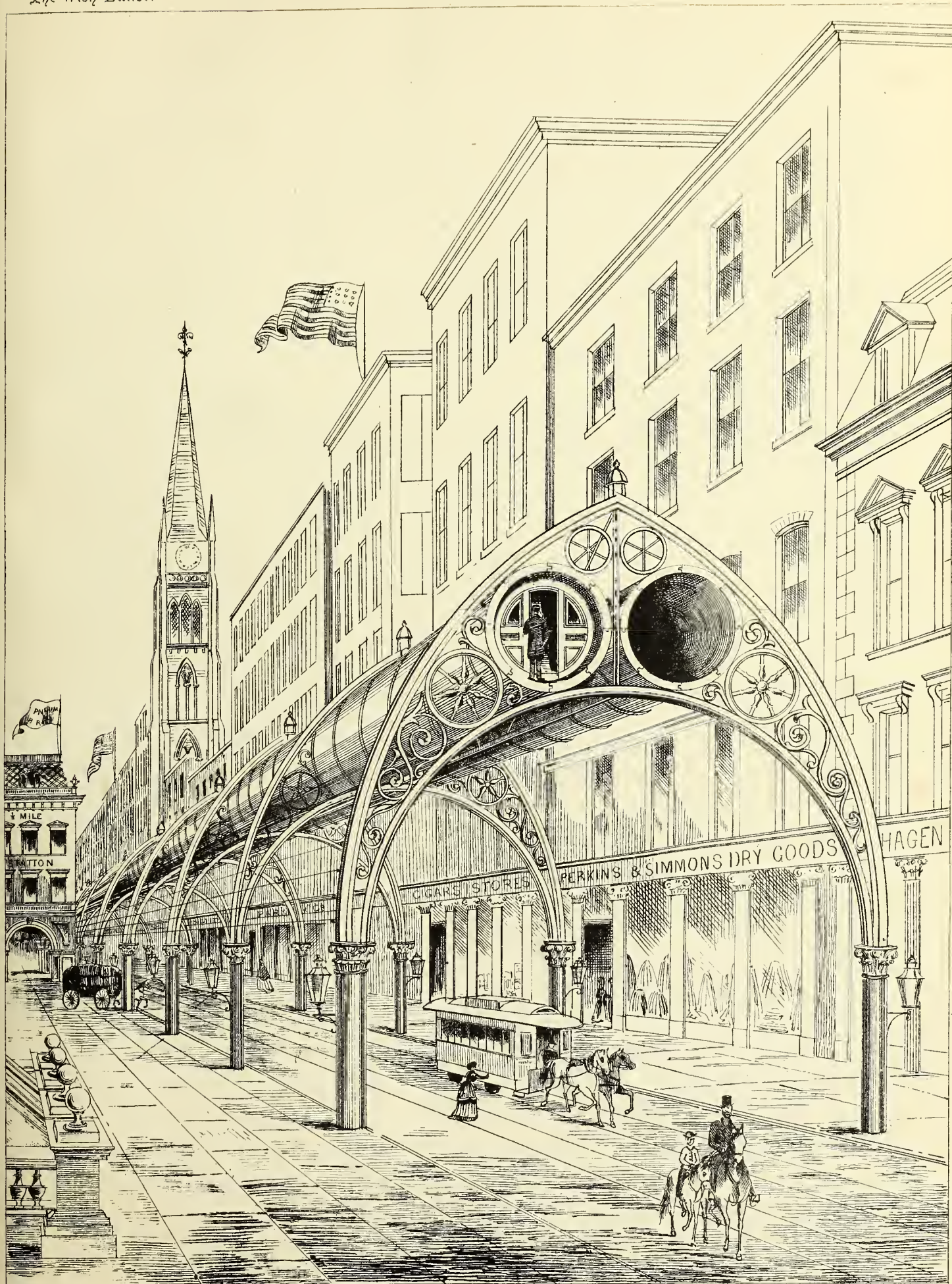
Having said this much, all we have to add on this occasion is, that the exhibition is announced to open on the 5th of June, and that up to this date some progress has been made in view to the arrangements and disposition of the goods arrived, and the objects of art loaned or otherwise for view as exhibits.

THE CORPORATE FISHING GROUND.

WE care not on the present occasion to cite the number of appointments that have been made within the last twenty or even ten years to offices in connection with the Dublin Corporation. The traffic has been continued and systematic. Even the chief magistrates of the city, lord mayors, and ex-lord mayors, have from time to time dabbled in this work, and have been assisted by certain moral (?) newspapers. Contracts have been voted to friends and relatives, and situations have been filled upon the same principle, in direct contradiction to the municipal laws. How many of our corporators, we wonder, honestly enter the Town Council for the purpose of serving the citizens? Very, very few indeed. Jobbery and fishing for appointments for friends and poor relations, is a great portion of the practice of town councillors, aldermen, and others; attending to the welfare of the citizens is a mere secondary consideration; "mind thyself" being the most paramount interest with a number of shameful place-hunters who sit in the Town Council.

If we deliberately stigmatized some of these well-known characters by name as "common robbers," there is no doubt but that the rascals would enlist the aid of the law to vindicate their injured innocence; but the truth exists, nevertheless, that there are disreputable characters in the Dublin Town Council, who are not ashamed to sacrifice the public interest to their own private ends. To be plain-spoken, they do not exist in ones or twos—there are several of these place-hunting, committee-sitting, money-grubbing adventurers and hangers-on to be found at Cork-hill.

There is not a pin's point to chose between the culprit of to-day and the culprit of a year or five years ago. "Sharp practice," as it has been lately called, has been practised by accusers as well as the accused, and the rate-payers' money has been squandered betimes not by single individuals but on the "round robin" principle, every man in a certain select circle having his hand in the pie. This is how the "Reformed Corporation," of which Daniel O'Connell was the first lord mayor, has acted for a number of years. A man may not openly rob the corporate purse any more than a man may not openly slay a dog, yet there are various modes for extracting money or killing dogs, and the methods are practised with considerable success in the Corporation of Dublin. If a few honest men are not conscious of the shame that they are assisting by their silence to exist they ought to be so, and either resolve upon keeping better company or making an effort to purify the atmosphere of their present surroundings. For



PROPOSED CITY ELEVATED RAILWAY.

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

our part, we will never cease to expose the conduct that characterises the Corporation until a reform is effected, and the business conducted according to law and justice. We have hesitated from time to time to make public proceedings which were a disgrace to any town council, reluctant to scandalise our city before the country. The truth ought, however, to be told, and we will cloak nothing in future. *En passant*, it is not a little remarkable to see the different versions often given in different journals in this city of corporate meetings. One certain journal is in the habit of suppressing matter that is not agreeable, or of putting it in a garbled way. When we require to know the truth, we are obliged to read the two or three versions that are often given by separate papers.

It is little wonder, indeed, that the most grievous wants of the city are neglected, and that the dirt of the town is proverbial. Disgraceful wrangling is the sequel of disagreements, not always on public matters but on private matters between self-seeking jobbers. There is a proverb which says "when rogues fall out," &c. It were to be desired that when corporate jobbers "fall out" that the unfortunate rate-payers of Dublin would have some chance of obtaining their own or the worth of their money in city comforts and sanitary improvements. There is another rough but homely proverb which says "silk purses cannot be made out of sows' ears." The moral is apparent.

CORRESPONDENCE.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Your remarks in reference to that clause which occurs in the specifications of some few architects, which not alone implies but provides that the entire expense of sinking for and building the additional depths often found necessary for foundation walls shall be borne by the contractor, is deserving of the gratitude of all who are interested in the subject.

I would respectfully ask you, what are the duties of an architect, unless one of them may be—that before a building contract is commenced, he is enabled to determine at what distance from the surface a solid stratum will be reached? and, if he does not choose to take this trouble (which possibly would, in many instances be unreasonable to require of him), why not define a depth, and provide it shall be added to or deducted from at a fixed price, as may afterwards prove necessary? The veriest Shylock of a client could not then complain he had been unwittingly led into extras, therefore, less excuse exists for the adoption of this clause.

I am unwilling to trespass too far upon your space, but another matter which—although not of such frequent recurrence—strikes me as being a serious cause for disagreement. Why should the provision for wells be a matter of chance? or why should a contractor be bound to sink until he can obtain an unfailing supply of water, at distances varying from 20 to 100 ft., and this, everyone knows, is liable to occur within comparatively short distances according to the dip of the underlying strata; why should not a fixed depth be given and a price stated for every additional 10 ft.?

But, after all, the remedy lies to a considerable extent with the builder himself, because he should object to these provisions before he signs a contract; nevertheless this is no excuse for their introduction, as in many cases he does so in ignorance of the consequences, or, perhaps, he relies too much upon that moral perception of right and wrong by the party who employs him, but which, unfortunately, too often ceases to exist when pounds, shillings, and pence are concerned.

For myself, whenever I find these clauses introduced, I invariably state, in submitting a tender, the depth I have calculated upon, therefore, I have never had reason to complain of their operation further than occasion-

ally finding that although I may be the most moderate, I am quietly passed over in consequence; but this, I confess, has only occurred where the client of the architect has subsequently proved himself to be, from his exacting disposition, one the loss of whose employment under a building contract would be "gain indeed." Greater reason then exists that people of this stamp should not be armed with the power of inflicting injustice. Happily it is by far the fewest in number of the profession who introduce these highly objectionable clauses; but a few can be the means of doing incalculable mischief, causing the loss of the entire expected profits upon a building, nay more, involving the builder in debt. No possible advantage can arise to the architect unless it be he obtains praise where praise is positive censure; on the contrary, his services would be far better appreciated by all right-thinking clients, were he to provide, in a business-like manner, against every possible contingency, and eliminate from his specifications all subject matters which are dependent upon chance, and which, as a rule, invariably produce disagreement.—I am, sir, your obedient servant,

A BUILDER.

TO THE EDITOR OF THE IRISH BUILDER.

HONOURED SIR,—I am an humble country mason who saved a trifle of money by sometimes taking jobs on my own account. A short time ago I was over-persuaded by my wife to start upon a bigger piece of work than usual. This was a plain two-storey house a few miles away from my own neighbourhood, and there was plans made for it by a grand Dublin architect. I made my bargain in as good a way as I could, and it ought, when the work would be finished, to have left me a reasonable profit. I went to work with a will, thinking I knew every inch of ground in the country, and all its conveniences, but in this I was mistaken, as when I had dug out the foundations to a reasonable depth, I found I was on a soft yellow clay; and the deeper I kept sinking the softer it got, until I had dug out as much as, if added to the height, would have nearly put another storey on the house, when at long last we came to a hard bottom. I never had any misgivings in the matter, but went on with the work as if nothing particular had taken place, thinking by course that my employer, as an honest man would pay me for it; but what was my astonishment one day, when asking him for some money on account? I spoke of the additional charge I would be obligated to bring again him. "What do you mean, Mr. —" says he; "don't you know you are bound by your contract to sink to such a depth as will ensure a solid foundation?" and pulling out the agreement, he showed it to me in black and white, with my own name signed in under it. I immediately writes off to the architect, and when he came down to examine the work, he said it was a very hard case, but he could in no manner of manes interfere in it, as an agreement was an agreement all the world over. Will you, Mr. Editor, as I see by your last paper you take an interest in the matter, advise me what I am to do in so unreasonable a case, for I never expected any law could hold me to a bargain like this, or that I would, by taking a bigger job nor usual, loose all I had earned aforesaid.—I am,

A COUNTRY MASON.

[We cannot advise our Correspondent further than to say, he should avoid signing such an agreement in future.—Ed. I. B.]

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—My attention has been directed to your remarks in last issue of the IRISH BUILDER upon what you term "undefined foundations," and, although in my specifications, I invariably state a given depth for such, and fix a price for any excess thereon, I can well understand why others of the profession do not adopt the same course. My practice, or rather my connexion, does not include clients of the speculative class, that

is, those who are building to make property, but I am well aware those must be treated differently from others. Their sole object amounts to this—they must get so much percentage for their expenditure, therefore, their usual instructions are to the effect, to allow no extras to occur, but to contract for a lump and final sum, this amount being generally named, beyond which all excess is frequently stated to be impossible.

I am not disposed to speak disparagingly of any class; on the contrary, my experience teaches me that the great majority of builders are disposed to carry out the works entrusted to their charge in the most straightforward manner and with the strictest integrity, but as there is no general rule without an exception, I must acknowledge there are some whose sole object, upon obtaining a contract, is to create as many extras as possible. Now, as such contracts are never obtained without competition; and as the architects seldom have the power of selecting the competitors, a difficulty here arises, because, if the architect permits in the first page of his specification a paragraph to appear, even likely to produce an extra, the uninitiated client imagines they will unceasingly occur throughout the progress of the works, and will sometimes, for this reason alone, abandon his projected buildings.

Although this argument will not apply in every case, it is undeniable but that architects have considerable difficulty to contend with in the avoidance of extras; therefore, the remedy, in my opinion, would be that a greater depth of foundation than is likely to occur should be provided, with the understanding of deducting any excess therefrom, or else that competitors should be instructed to satisfy themselves fully upon the subject before submitting their tenders.—I am, sir,

AN ARCHITECT.

THE IRISH EXHIBITION AND IRISH ARTISTS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—As you always show a great interest in works of Irish art, and in favour of Irish artists, can you tell me to what extent Irish artists, architects, decorators and others, are employed in preparing for the opening of our Irish Exhibition? The late Sir Benjamin Lee Guinness, I know, and have reason to know, was a warm patron of native talent, and of resident artists, when the work of St. Patrick's Cathedral restoration was proceeding. I am given to understand that nearly all the work performing at the Exhibition Palace is by London firms. As I am at present engaged upon a commission in a distant part of the island, and not in frequent communication with the city, I am not very well informed of what works are in course of execution of an artistic or ornamental nature, nor do I know, except to a small extent, who are the artists and manufacturers employed.

Would you kindly give, in your next issue, some brief particulars, and oblige,

AN IRISH ARTIST.

I enclose my card.

[In answer to our correspondent, we have only to state that the daily or weekly papers have given the most of the information he requires. However, our respected correspondent will receive by post a document and some other papers which we trust will afford him the particulars he desires.—Ed. I. B.]

POSTHUMOUS SCULPTURE.

IN consequence of the unhappy death of Mr. Mitchell, who was engaged on some pieces of statuary intended for the Irish exhibition, the work of completion is entrusted to a Mr. Bromfield, also of London. In part, therefore, if not as a whole, there will be children of the artist's brain that will be helped into the world under very painful circumstances, and which will be suggestive of very sad memories in more ways than one when looked upon in our exhibition.

THE PROFESSION, PRACTICE, AND PROSPECTS OF ENGINEERING IN IRELAND.*

(Continued from page 119.)

Of the future prospects of engineering in Ireland it is difficult to speak with any certainty. Much work doubtless remains to be done, but, with some few exceptions, chiefly by supplementing the deficiencies and filling in the shadows of the broader lines of enterprise which have already been opened up. As regards railways in Ireland, it seems clear that there cannot be any very rapid extension of either main or branch lines for the future, for the industry of the country is not sufficiently manufacturing to make it likely that such enterprise will meet with much encouragement. There is, however, a certain opening for cheap railways, and this subject has much engaged the attention of engineers and others since the success of the Festiniog line has awakened attention to the subject. The action of the Indian Government in determining to make the metre a standard gauge in India seems certainly a move in the right direction, for it appears very absurd to introduce costly wide gauges into poor countries when narrower ones have been found sufficient for the wants of the richest and most industrious nations in the world. It is now becoming gradually understood that a frequent service of light trains affords greater accommodation to the public and a greater inducement to them to encourage railway traffic than heavy trains at long intervals, and as it generally happens that a great portion of a railway staff must be employed whether the trains run frequently or not, and as a large proportion of the cost connected with the railways is in no respect, or scarcely at all, dependent on the number of trains, it follows that the expense of a railway worked with frequent light trains, compared with that of one worked with few and heavy trains, will bear a very different ratio indeed from that of mere relative number of trains. There are few intelligent minds that have considered the subject carefully who will not acknowledge that a metre gauge, similar to that which is now so wisely introduced into India, where it will probably ultimately supersede all other gauges, would, if originally made the gauge of Ireland, have given all requisite facilities for traffic, and have paid a considerably larger per-centage of dividends to the shareholders, as well as have been further extended throughout the country, than the present gauge of 5 ft. 3 in. It may be too late to go back on the past, but it is probable that future branch lines will, to a great degree, be constructed either on a narrow gauge, or, if the standard gauge be maintained, with a much lighter permanent way and lighter rolling stock than those adopted on the main lines. Both systems have their able advocates among the members of this Institution, and I trust they will bring the question forward, illustrated by statistics and acquired experience, which alone can render material assistance in deciding the relative merits of such questions. A few general considerations, however, may not be devoid of interest. The *bête noir* of the narrow gauge is the alleged difficulty of breaking bulk—an evil, I believe, more imaginary than real. As regards passengers and parcels, this is already done wherever a junction occurs between a branch and main line and, as regards heavier goods, there are several ways of overcoming the objection. For instance, with such traffic as coals there is no great difficulty in making the bodies of the narrow gauge coal trucks to lift like boxes off the frames, to be hoisted by suitable cranes on board the larger trucks, as was formerly the practice with the diligences in France, when passengers were conveyed partly by rail and partly by a diligence that was separated from its wheels, and then mounted bodily on a railway truck in the course of a very few minutes, without dis-

turbing either luggage or passengers during the operation. For bale goods this may not be equally desirable and they may, perhaps, be better transmitted, as passengers' luggage and parcels now are, by hand, from wagon to wagon; and the expense of this will be less than at first sight may appear, for there must always be a certain staff of men available at junctions who might just as well be employed at this work as in doing nothing, which frequently forms their principal occupation for several hours every day. Some persons have imagined that it would be necessary to have a special local repairing shop for narrow gauge engines and wagons, but this is altogether a mistaken notion; nothing can be easier when a heavy repair is required than to hoist the little wagon or engine on a broad gauge truck and run it up to head-quarters, where the principal workshops are situated. The great thing to dread with a light branch line of the ordinary gauge, is the tendency of traffic managers and directors to work it with the heavy worn-out rolling stock and engines which are not considered good enough for the main line, and gradually the system will drift into that adopted on the latter, when nearly all the advantages supposed to be derived from the cheaper kind of railway will disappear, and the state of affairs will gradually become much the same as we find along our present branch lines, with this additional demerit, that the unfortunate engineer will come in for a large share of obloquy from every side—from the traffic department and directors, because special rolling stock are required, and when this objection is removed from those pecuniarily interested, because the commercial result fails to meet their anticipations.

Few circumstances afford stronger evidence of the increasing prosperity of this country than the development of traffic, and this is shown, in a marked degree, by the increased tonnage and demand for improvement in some of our principal ports. In Belfast, we find that the tonnage which entered the port has doubled in about twenty-one years; in Dublin in about twenty-three years, while in the port of Liverpool it has doubled in twenty-five years. The respective tonnages entering these three ports, and Glasgow, for one year were as follows, those of Belfast and Dublin being made up to the end of the year 1870, and those of Liverpool and Glasgow being made up to midsummer of the same year:—Belfast, 1,225,566 tons; Dublin, 1,506,011 tons; Glasgow, 1,992,110 tons; Port of Liverpool, 5,723,504 tons. It thus appears that the tonnage of Dublin is about three-fourths of that of Glasgow, and a little over one-fourth of that of the Port of Liverpool, which includes Birkenhead. This increased tonnage is also accompanied by an increase in the size of ships, and the demand for accommodation is not merely for additional length of quay space, but for deeper water alongside. Vessels drawing 22 ft. of water are now sufficiently common in the port of Dublin; and all experience shows that as soon as accommodation or facilities are provided, so soon will they be eagerly seized and create a demand for more. These facts clearly prove the fallacy of the statement so often repeated, like the cuckoo's cry, that we have now come to the limit of extension of trade and industry, and that we should, therefore, rest and be thankful. With minds addicted to this class of thought it is difficult to reason effectually, for arguments based on logical inference or experience have little or no weight with them; and they regard the well-considered opinions of more enlightened and more experienced people as the lucubrations of over-sanguine and enthusiastic fancy. On the other hand, we find a different type of mind, which, rashly jumping to conclusions, claims public support for its visionary crotchets and ill-considered schemes; and, if this be not conceded, represents itself as being in advance of the age, and therefore somewhat ill-used, though it may console itself with the hope that posterity will do it tardy justice. Now it is the business of the engineer to steer clear of

either of these extremes. His mind should be calm and free from bias or partisan views on the questions with which he has to deal; and though he should be prepared, when necessary, to infuse a fair share of enthusiasm into the expression of his carefully matured ideas, he should trust to logic and sound common sense carrying the day, rather than appeals to the imagination or speculative tendencies of his clients.

This leads me to consider that most important branch of the engineer's profession which consists in preparing plans, statistics, and other evidence for parliamentary committees. A frequenter of the committee rooms of the House of Parliament cannot but be struck with the immense labours of those members who devote not only their evenings and nights to legislation, but spend from four to five hours of the day time in the investigation of the merits of local or private bills with rare patience, and, generally speaking, great tact and an intelligent recognition of the duties they have to perform as combined judge and jury. Though the chairmen of these committees are selected for their high qualities, yet one cannot sometimes feel that their want of professional training and experience often leads not only to great waste of public time and expensive and protracted contention between opposing interests, but that occasionally there is a certain failure of justice, owing to the absence of an unbiassed professional assessor who would at once detect inconsistent or partial evidence, and confine the professional witnesses to their proper functions of stating facts and not becoming advocates. It may, perhaps, be said that under the present system any loose points, on either side, will be detected by the cross-examination of the opposite party. This, no doubt, will often occur, but it also sometimes happens that one side fails in procuring such weighty evidence as the other, either from poverty of means, or what is, perhaps, fully as common a cause, the question being one of little interest to private individuals; and then it happens that that which is everyone's business is neglected by all. An assessor such as that described should hold a very high rank in his profession for intelligence, experience, and rectitude of purpose; and, as it would be incompatible with his duties as assessor that he should continue his private practice, it would be necessary to attach such a salary to the appointment as would compensate for this loss, and render the post one desirable of attainment by the highest members of the profession. Two such assessors, with well-selected committees, would probably be sufficient to get through the more important private business of each session; and there can be little doubt that the result would be beneficial to the profession at large. We should find less special pleading and less disregard for strict veracity than is now unfortunately sometimes found in the advocacy of professional men, and such appointments would be very beneficial in consolidating the influence and elevating the status of the engineering profession. The relief to Members of Parliament would be very great indeed, for the vast expenditure of time and labour in morning committees, which now form so heavy a tax on their energies, would be greatly diminished, and their work would not only be quicker but it would be better done.

Of late years sanitary engineering has taken a very conspicuous place, both on account of the vital importance of the subject in a public point of view, and, perhaps, to a certain extent, in consequence of the diminution of railway construction, leaving the fertile minds of the profession freer to seek new paths for their enterprising skill. At present we see isolated and desultory efforts to free the great centres of population from the dangers arising from concentrated masses of mankind; and, as villages creep into towns, and towns into cities along the valleys of the sister isle, we find the question perpetually giving rise to parliamentary and royal commissions, hasty legislation but half enforced,

* Inaugural Address, delivered at the Meeting of the Institution of Civil Engineers of Ireland. By the President, Bindon B. Stoney, M.A., M.I.C.E.

injunctions, and cross purposes, each little township or district looking to its own interests, only and generally ignoring those of more distant populations, while vast expense is incurred, and abortive attempts are made to palliate the evil, in place of boldly grappling with the question and facing the difficulty at its source. The method, then, which seems to recommend itself as the most likely to succeed in producing general good results is to form a drainage board or commission for each main river valley, extending from its source to its outlet in the sea, and embracing within its jurisdiction the whole of the tributaries, and the area which discharges its waters therein. The board might be formed of representatives of the various interests concerned, and have one or more paid commissioners appointed by Government to prevent the weak from being overtaxed by the majority. Where, as occurs in many valleys in the manufacturing districts in England, village after village and town after town rise along the banks of the same rivers and its tributaries, it seems probable that it will be found necessary to construct a great main drain or sewer, parallel to nearly the whole length of each stream, and intercepting in its course all the sewage which would otherwise pollute the water. At suitable places along its course, this intercepting sewer should be tapped for purposes of irrigation, and thus greatly diminish, or under favourable conditions, altogether remove the sewage in the best method hitherto devised. If hereafter any plan of deodorizing or otherwise manipulating the sewage be brought to perfection, it can also be adopted at suitable places along the intercepting sewer, remote from the thickly peopled localities.

THE ROYAL

HISTORICAL AND ARCHÆOLOGICAL ASSOCIATION OF IRELAND.

The April meeting of this Association was held on the 3rd ult. at Butler House, Kilkenny, the Rev. PHILIP MOORE, P.P., in the chair.

The proceedings, as will be seen, were of a most interesting character.

The Irish Executive are, indeed, called upon by every sense of honour to help this most deserving national body, and secure for it a small grant that would enable it to extend its usefulness.

It is doing good service to the country by its labours, and among its members are men who are entitled to every praise, for their labour is a labour of love to them, while, at the same time, they are rendering important service to the history and literature of their country.

The Chairman said he had not had an opportunity of examining the Museum for the past two years, but he had now gone through it, and it afforded him the utmost gratification. Really it wanted very little, if anything, of the character of a National Museum, and it was a pity that the Association could not afford to have a resident attendant of intelligence to exhibit it to all visitors. He would like to see some action taken by an active member of parliament to get a small annual grant from parliament for the support of the Museum—to pay the salary of a resident caretaker and supply fuel for keeping it well aired; £70 or £100 a year would do all that was requisite, and it ought to be easily got.

Rev. James Graves said that they would make an effort, let the result be what it might. He was in communication with an official of the South Kensington Museum, who had encouraged him to hope that a small annual grant of the kind might be got from parliament for the purpose, if the locality showed a wish for the permanent sustenance of the Museum by contributing towards the expense. They had, on the motion of the Mayor, nominated a committee to take steps in the matter, at the January meeting, and he was only waiting for the London season to be over and the country gentry certain of being at home, to call the committee together to commence operations. Although encouraged very

much by the letter from the South Kensington official, still the niggardliness with which the Government acted towards the Royal Irish Academy, which was the leading National Museum of Ireland, and always should be so, was anything but assuring.

The Chairman—Why, here we have the Marquis of Hartington elected a Fellow of our Association to-day, on the motion of the Marquis of Kildare. The influence of either of these two noblemen ought to suffice to get at least £70 a-year for such a purpose—both together ought to be a host in themselves.

Mr. Bracken, C.L., had great hopes that if there was a proper local interest shown, the Government would be induced to aid them with a small grant. It should begin with the Corporation, then the citizens, and the country gentry after.

PRESENTATIONS TO THE LIBRARY.

A number of books were handed in by the Secretary, chiefly the publications of kindred societies, as presentations to the library; amongst these were the publications of the American Smithsonian Institution, and of the Royal Archaeological Society of Copenhagen. Amongst other books presented by the authors, was the Rev. Richard Smiddy's "Essay on the Druids and the Ancient Churches and Round Towers of Ireland."

PRESENTATIONS TO THE MUSEUM.

The Chairman presented a small iron cannon-ball, weighing about 3 lbs. and two leaden musket bullets, obtained by him at Anghrim on the 12th July, 1853, whilst exploring the battlefield. They were undoubted relics of that famous fight. Also a rubbing of the armorial bearings of the De Fraynes of Ballyreddy, from the ancient family monument in Ballyneal church.

Mr. J. H. Power, Manager of the National Bank, Roscrea, presented some ancient buckles and other antiquities, as well as old coins, and a curiously-carved small stone. The antiquities and coins had been found near Athlone, the stone at Ballinderry Lake, near Moate, Co. Westmeath.

The Rev. Martin Hologan, Waterford, through Mr. Prim, presented photographs of two monuments at the Franciscan Abbey, Galway. One, the tomb of William de Burgh, 1644; the other a tablet with armorial bearings of Sir Peter French and Mary Browne, his wife, of the same period, the supporters of the shield being figures representing St. Patrick and St. Nicholas, Bishop of Myra, patron saint of the diocese of Galway.

Mr. Thomas Stanley, Tullamore, presented a small silver brooch of rare type, accompanied by a description of some earthworks in the King's County.

Mr. Prim, wishing to form a nucleus of a collection of specimens of the arms and accoutrements of the old local volunteer corps of the period of the rebellion of 1798, which might be placed in the same department of the Museum, with the colours of the Kilkenny Rangers (1782), and the colour-staff of the Kilkenny Militia, lost at the fight of Castlebar (1798), and subsequently recovered, which were already in the Association's possession, begged leave to present a sword of the Gowran Yeoman Cavalry, the weapon in question being that carried by his grandfather, the late Mr. John Anderson, of Dunbell, who, as were most of the neighbouring gentry and farmers of the locality, was a private of the corps, commanded by Mr. Bailey, Norelands, as Captain, in 1798. Also, on the part of Mrs. Henry Bird, James's-street, be presented a uniform coat of the Kilkenny Legion, a volunteer corps of the city, at the same period. This was the coat of her grandfather, the late Mr. Basil Gray, wine-merchant, who was third sergeant of the second company, the first sergeant being the late Dr. Pack, the second, Mr. Way, a gentleman of property residing in the town, and the fourth, Mr. Brennan, the then eminent brewer. The corps was commanded by the Hon. James Butler, afterwards Marquis of Ormonde; the late Sir G. Wheeler Cuffe was captain of the first company, and the late Sir John Blunden, Bart., captain of the second company; J. Kinchela, Esq., adjutant. Mr. Prim said he had another presentation to make also in the "old clo'" line. This comprised the uniform shako, coatee, and pantaloons of the band of the Kilkenny regiment of militia in 1808. The band of the "Kilkennies" was famous at the time for the superior excellence of its music and the splendour of its equipment, Logier having been the bandmaster, and the Marquis of Ormonde giving his entire pay as colonel, to the band fund. He (Mr. Prim) had rescued these relics of the finery of the old Kilkenny militia band from being set up as a "scare-crow" in a garden in the city, which he chanced to visit just as they were being applied to that purpose.

Dr. Long, of Arthurstown, sent for exhibition a curious embroidery of the arms of Queen Anne,

worked by the grandmother of a friend of his, Mr. Sanderson, of Arthurstown.

IRISH HISTORICAL PORTRAITS.

The rev. chairman said, on a former occasion, he had exhibited the greater number of the portraits of remarkable Irishmen which he had collected up to that time. They seemed to excite some interest amongst the members who were present at that meeting, so that he had brought a few more now, since obtained. It was his hobby to collect these portraits, and it was a great mercy to a man to have a hobby of some kind. He was glad to find that we were about to have an exhibition of portraits in Dublin, those which had taken place in England having been most successful. He hoped the Dublin Exhibition would prove equally successful. His present stock of portraits were of every period from that of Elizabeth downwards. There were gentle Edmund Spenser, Blount, Lord Mountjoy, Owen Roe O'Neill, O'Sullivan Beare, General Preston, the not very successful commander of the Confederates' army; Daniel Astel, the Regicide; Le Duc de Lauzun, general of the French contingent to the army of James II., and who saved the Duke of Ormonde's wine cellars in Kilkenny Castle from being pillaged; Marshal Auverquerque, brother to the Countess of Ossory, who fought for William at the Boyne and Aughrim; Hamilton, Earl of Orkney; Tyrconnell, a very fine French engraving; George Makenzie, Earl of Cromarty; Dr. Sheridan, the author of the famous lines on Ballyspellan Spa; Wentworth Dillon, Earl of Roscommon, the poet eulogised by Pope and Dryden; Edward Campion, the Jesuit, author of the History of Ireland; Thomas Carue, who had vindicated the conduct of Butler, in connexion with the death of Wallenstein; Carolan, the Irish Bard; John Banim, of Kilkenny, the departed member of the "O'Hara Family;" Thomas Hayns Bayly, the lyric poet, who was a Cork man; General Sir de Lacy Evans; the unfortunate Tyrone Power, and several others.

The inspection of these portraits created a great deal of interest to those forming the meeting, who were unanimous in expressing their thanks to the chairman for bringing them before them.

THE ROUND TOWER OF KILMACDUAGH.

The Rev. James Graves reported the receipt of the following letter from the Hon. L. G. Dillon, to whom he had written in accordance with the instructions of the last meeting, consequent on a communication received from Lord Courtown:—

"Clonbrock, Ahascragh, March 9, 1872.

SIR—In reply to your letter of the 5th instant, I beg to inform you that I have written to enquire about the Round Tower of Kilmacdagh, which is at a considerable distance from here, about 30 miles. I bear that it was struck by lightning some years ago, which broke down some part of the stone roof, and caused a fissure which extends about half-way down; also that it is now out of the perpendicular. Very little, therefore, has, as yet, been thrown down, but it probably is in a very precarious state. With reference to your question as to what local assistance may be expected towards its restoration, I am not in a position to give you any information, but I am informed that Lord Gough, who lives within a few miles, takes an interest in the matter, and that small subscriptions might probably be obtained from others in the neighbourhood.

"I have the honour to be, Sir,

"Your obedient servant,

"L. G. DILLON."

It was requested by the meeting that Mr. Graves would continue his inquiries on the subject, and report further to the next meeting of the Association.

ANCIENT ECCLESIASTICAL SEAL.

Mr. Graves brought under notice a fine bronze seal connected with the Primatial See of Armagh, which had been entrusted to him for exhibition by John Blackett, Esq., Ballyne. It was the seal of Octavian, Archbishop of Armagh from 1480 to 1513, as appeared from the legend—"Sigillum Octaviani Primatis Hibernie." The device was a bishop, robed, with a crozier in the left hand, the right hand raised in blessing; the figure standing under a late perpendicular canopy. It was sharply cut, and in excellent preservation. Mr. Blackett only knew of this antique, that it came to him as executor of his sister-in-law, Mrs. Bailey, who had it from her husband, Captain Charles Bailey, R.N., late of Southwold, in Staffordshire. How it came thus from Ireland to England is not known. Octavian de Palatio was a Florentine, advanced to the Primacy of Ireland by Pope Sixtus IV. in the room of Conesburgh, who had resigned. He was a strenuous supporter of the rights of King Henry VII., against the efforts of the Earl of Kildare to set up the pretensions of Perkin Warbeck to the crown,

and he is reputed to be the author of the curious Latin satire on the people of Armagh:—

"Civitas Armachana
Civitas Vana,
Absque bonis moribus;
Mulieres Nudæ
Carne Crude
Paupertas in Edibus,"

which Harris translated thus:—

"Armagh is notorious
For being vain-glorious,
The men void of manners; their spouses
Go naked; they eat
Raw flesh for their meat,
And Poverty dwells in their houses."

Mr Graves said he was glad to be able to state that Primrose Beresford would give a subscription towards having the seal engraved for the Association's Journal, for which Dr. Reeves would supply an accompanying notice of Archbishop Octavian. They were much indebted to Mr. Blackett for lending them the antique.

The following were elected to fellowships:—The Most Hon. the Marquis of Hartington, Chief Secretary for Ireland; The O'Donovan, A.M.; J. Casimir O'Meagher, Esq.

The following were elected members:—The Right Rev. Dr. Conroy, Bishop of Ardagh; Thomas McClure, Esq., M.P., Belmont; Miss Anne Mauleverer, Armagh. Professor D. Ernest Windisch, Leipsig; Richard Langrishe, Esq.; A.I.C.E., Kilkenny; Rev. William Iago, B.A., Bodmin, Cornwall; John Barrett, Esq., Kilkenny; Patrick Traynor, Esq., Dublin; Maurice Hennessy, Esq., C.E., architect, Limerick; Robert Arthur Wilson, Esq., Enniskillen.

The usual vote of thanks having been given to donors and exhibitors, the meeting adjourned till the first Wednesday in July.

THE DUBLIN CENTRAL RAILWAY SCHEME.

A MEETING was held a few days ago at the office of Messrs. D. and T. Fitzgerald, St. Andrew-street—a meeting that can hardly be called a public one. The purpose of the meeting was to consider the best mode of promoting the objects of the Dublin Central Station Railway, and to hear the explanation of its engineer, Mr. Frederick Barry, C.E.

We have already shown what a monstrous disfigurement would be entailed on our city if this bill was allowed to pass in its present form. It would not only be destructive to the beauty of our river, but the allowance of a central station to be erected on the spot proposed, would be a lasting scandal and disgrace to our city, collective and corporate.

We know there are several parties in the city who have a direct interest in helping out Mr. Barry's scheme; but it is a mere money question with them, and it is immaterial to them whether the beauty of Dublin, in an architectural sense, is for ever destroyed so that they can achieve their ends. We are not opposed to a proper railway scheme of junctions and amalgamation for Dublin and for the benefit of the trade and traffic of our city, but we are opposed to a most ill-considered scheme in many important particulars.

"Mr. Barry said that the probable cost of the Central Station Railway would be under £600,000, and that the Port and Docks Board would not be likely to offer any opposition on his giving—as he could safely give—an undertaking that the waterway of the river would be kept free. The chief opposition he apprehended was from the Midland Company, who were interested to the extent of £5,000 a year in the tolls which would arise from the other schemes, and from the London and North Western Railway Company, who were also largely interested in another respect."

Mr. Barry is not at all correct in the above statement, but he is every bit as correct as he is in the following:—

"It would take about £2,000 or £3,000 to cover the expenses, and that any subscription put down now would not be understood to oblige the subscriber to take shares in the company afterwards, but that he would be allowed shares to cover the amount now given. He also stated that there was no doubt that if the bill became law the other railway companies would join it, because, so anxious were they for establishing railway communication, that the London and North Western Company alone were going to pay £90,000 for the advancement of one of the rival schemes."

We are told that a subscription list was opened at the conclusion of the meeting, and that it was headed by Messrs. Pim with £100. We are also told that "several large sums" were also put down, but whether it is owing to the modesty of the subscribers or the shrewdness of the promoters we are not told the amount singly or collectively of these "large sums." We are allowed to draw our own conclusions in this, and as we have already drawn them in other matters, we will watch with a careful eye the future evolutions of the Dublin Central Railway scheme.

Any opposition we may give to it will not be a factious one; we will simply analyse its virtues and exhibit its vices for the benefit of the city and the common weal.

"THE GREAT MULDOON," M.D.

Air—The Minstrel Boy.

Doctor Muldoon to the dogs is gone,
In Skinner's-row you'll find him;
A churchyard view he is looking on,
And Bull-alley yawns behind him.
"Prince of Quacks," said the Cook-street bard,
"Though all the Press displays thee,
One honest pen shall hit thee hard,
One fearless poet shall craze thee!"

The doctor fell, but the pressgang swore,
With a burst of claptrap thunder,
The quack they lov'd they would all deplore—
But at that we need not wonder.
Farewell, farewell, Muldoon, to thee,
Thou soul of pure gimcrackery;
Thy draughts were made for thy dupes, who'll be
In the grave by you and Quackery.

Trinity College, Dublin.

GULLIVER SWIFT

IMPROVEMENTS IN TORPEDOES.

PROGRESS in iron ship construction as a consequence of warfare leads to progress in the mode and methods required for their destruction. While one class of inventors are devoting their energies and wealth to build invaluable ships, another class are striving with might and main to render them vulnerable and useless. Indeed, some of the very men who have been rewarded for their inventions towards our defences, are the very men, individually, or through their agents, are striving hard to be rewarded again for rendering their much-prized inventions worthless.

A scientific committee have been for some time at work at Woolwich experimentalizing with torpedoes, and engaged in making series of investigations as to the best form, process, and compound for their manufacture. A lecture was lately delivered by Mr. E. Brown, Assistant Chemist to the War Department, at the Royal Artillery Institution, Woolwich, from which we glean some particulars as to the different kinds of torpedo now in use or projected. The most ordinary form of torpedo, of which there are many thousands at present stored at Woolwich, consists of an iron case, nearly oval in shape, and calculated to contain some 500 lbs. of gun cotton, which, as the explosive agent, is preferred to any other yet discovered. These the investigators think as suitable as any which can be provided for barring the entrance to ports and rivers, and for protecting assailable places round the coast; and, as far as present experience extends, there appears to be no better mode of mooring them than by the mushroom anchor, nor any more suitable method of ignition than by electric wires, under the control of intelligent observers on shore or in friendly ships. The application of electricity to this purpose has been greatly advanced by recent researches at the Royal Arsenal Chemical Department, and an apparatus has been devised by which an operator, seated at a key-board any distance away, can not only tell instantly which of his line of torpedoes has a ship above it, and fire away one or all as rapidly as he pleases, but by which he can test and discover the locality of any fault in his cables without interfering with the mines themselves. There are also torpedoes intended to be fired on contact, the construc-

tion of which is such that, on being struck by the keel of a ship, a glass tube is broken, and a small quantity of sulphuric acid, mingling with a chemical compound, generates heat and fires the charge; but from the liability of this system to endanger other ships beside those of the enemy, and the extra risk involved in laying them down, the electric plan is, except in very special cases, preferable. It is, however, with aggressive or locomotive torpedoes that the committees appointed by the War Office are at present, and have been for some time past, specially engaged. The most primitive of these is that of fixing a charge of 50 or 100 lbs. of powder at the end of a pole projecting twenty feet over the bows of a small boat, which a daring crew may take alongside the enemy, thrust under water and fire, either by electricity or percussion. Although the "cutting out" service was several times tried during the American war with fatal results to the crews engaged, the experiments which have been lately made in England show that with proper care the outrigger system, as it is called, may be adopted with absolute immunity to the operators, and it has been authoritatively pronounced "a most formidable means of attack." Another system which has been favourably reported upon is a contrivance for steering a torpedo by means of a line from the deck of a fast sailer, so that the machine shall be led as it were under an antagonist one or two hundred yards away, and fired. It has been found by repeated experiments that these torpedoes, skilfully managed, may be manoeuvred with great success. One of the newest and most ingenious locomotive torpedoes, several modifications of which are being constructed at the Royal Arsenal, is called the "fish torpedo," from its singular form and mechanical action. It is about 5ft. long by 2ft. through at its greatest diameter, and is furnished with fins and a tail to act as propellers, worked by a little engine inside, the motive power of which is compressed air. It may be set to run in any direction, and at any required depth under water, while its inventors claim for it the power of navigating an undeviating course of 800 yards, a doubtful quality, though it has been tried up to 150 yards, and answered well. This torpedo is intended to be fired from ships constructed or adapted for the purpose. A tube 28ft. long is to be inserted longitudinally in the ship below the waterline; the mouth, which projects from the bows, being fitted with a cap to keep out the water. Two sluices in the tube allow the torpedo to pass into it, the cap is removed, the ship "takes aim," and the torpedo is shot out by a propeller. As it emerges, a stud sets in action the atmospheric engine, and the destructive fish proceeds at the rate of about ten miles an hour, and with remarkable accuracy, towards its prey. On striking, a charge in its head is ignited by a percussion fuze, and the charge being a heavy one, there are few, if any, ships afloat which could withstand the shock. Its principal defect is its liability to be affected by currents, and the consequent uncertainty as to its hitting its object, especially if that be a ship in motion, but, as its success in any one instance would practically amount to certain destruction of the vessel assailed, the system is engaging at the present time more attention, perhaps, than any other.

At present there are some torpedoes under trial at the Laboratory, from which great results are anticipated.

More attention will have to be devoted also to the securing of ships against the danger of submerged torpedoes sunk at the mouth of harbours and entrance to channels, and methods will necessarily have to be devised for discovering the hidden danger and clearing the channels of them. Perhaps torpedoes could be effectually used to fight torpedoes under water on the principle of setting a thief to catch a thief. If one torpedo came across another, of course an explosion would ensue, the same as the striking of the submerged keel of a vessel. Here is a hint for the War Department, which they might utilize with advantage.

GILBERT'S ELEVATED RAILWAY.

Among the recent projects for rapid transit in New York is that of Mr. R. H. Gilbert for an elevated railway, on the plan so tastefully represented in the accompanying engraving, which we have sketched from the *Scientific American*.

The plan is to place along the street, at distances of from 50 to 100 ft. compound Gothic iron arches, which shall span the street from kerb to kerb, at such an elevation as shall not interfere with the ordinary uses of the street. On these arches a double line of atmospheric tubes 8 or 9 ft. in diameter are to be secured. The arches are strongly connected with each other by means of a vertical latticed or trussed girder running between the tubular ways, which are to be firmly jointed to it on either side by ties of suitable construction. Through the tubes—supported as described—cars carrying passengers are to be propelled by atmospheric power. There is also provision in the same set of arches for two or more sets of tubes for the transportation of mails and packages. The stations will be situated at distances of about one mile apart along the line, and will be provided with pneumatic elevators to raise passengers to and from the place of transit with perfect safety, thus obviating the necessity of going up and down stairs for transit. The movement of the cars or trains along the line, as well as their arrival and departure from stations, is made known at all points by a telegraphic device which is automatically operated by the cars in passing.

SANITARY MATTERS IN THE CITY AND PROVINCES.

We have scarcely anything important to report in this issue concerning sanitary progress either in the city or the provinces. The Corporation have, through the Public Health Committee, advertised for tenders for the erection of a convalescent home. It is pitiable to see the waste of time that has taken place over this matter, and the length of time that has elapsed since it was first spoken of. Of course "nobody is to blame," but we know perfectly well the incapables who are to blame, and whose conduct is not only reprehensible but criminal in the highest degree.

The scavenging of the city is performed in the same inefficient manner as usual, the back courts, lanes, and streets being let to take care of themselves, wind and weather performing the watering and dust-removing operations. The vaults under the City Hall ought to have been let for a public "morgue," and the storage of disinfectants; then the "dead and alive" bodies who are of no earthly use to the city would be brought in closer proximity to one another. Perhaps the conversion of the "vaults" into catacombs for the future burial of the celebrated ones of the city council would be a wise provision. There would be something grand in the thought that the ashes of the mighty dead rested under the council chamber where he in life thundered his arrant bosh for hours, while he jobbed away at the same time the rights and privileges of his fellow-citizens.

FROM BELFAST.

AMONGST the building works at present going on in "the Northern Athens," we have to notice an erection at the foot of Donegall-street at its junction with Waring-street, in almost the centre of the town. The site has been, during the past half century, very variously occupied. At the commencement of that period it was taken by the Belfast Banking Company, at the time of its amalgamation with the Belfast Commercial Bank, and for many years they continued to have their head office there. The premises were next occupied as a seed warehouse, by Mr. Peter Scott, who continued in occupation for a considerable period. Subsequent to Mr. Scott's occupation, the building was taken by the Telegraph Company, and fitted up as their central office, and it was found, from its situation, to

be admirably adapted for that purpose; and the convenient arrangements for the accommodation of the public will be in the recollection of all. When the Government assumed the management of the telegraphs, and removed their head-quarters to the General Post Office, the old tenement was once more left vacant, and this for the last time. After remaining unoccupied for some time, it was resolved to demolish it, and make way for a still more modern and substantial erection. The site lay idle up till this spring, when building operations were commenced at the instance of Messrs. Malcomson Brothers, the proprietors. The structure which is being erected will be devoted to shops and mercantile offices, and the plans have been adapted accordingly. Formerly, the corner used to form a sharp angle, but for the purpose of facilitating the public traffic, we understand that the Town Council have purchased from the proprietor a few feet of the ground, so that the angle may be rounded off. In addition to the convenience this will prove, it will tend to make the building itself more pleasing in appearance. The building will have a frontage to Donegall-street of 43 ft. and to Waring-street of 52 ft. It will be four storeys in height, and the style of architecture is Italian. On the side of Donegall-street there will be two warehouses with separate entrances, the pillars on which the superstructure of the building rests being of grey granite from Bessbrook. Two doors from Waring-street lead into offices, one of which will be occupied by Messrs. Thomas Combe and Co. One of the shops towards Donegall-street has been let to Joseph Wright and Co., of the Overland Tea Warehouse. The three upper storeys will be let as offices. The windows on the second and third floors are two-light, with sandstone columns and Corinthian capitals between, and the fourth storey has a tier of three-light windows. The top of the wall will be finished with ornamental balusters retaining the roof. The height of the balusters from the ground will be 56 ft. The main portion of the building will be constructed of red brick with cement facing, and the building is being rapidly carried on by the builder, Mr. William M'Cammond, Antrim-road. The architects of the building are Messrs. Thomas Jackson and Sons, who are also superintending the execution of the work. When completed, though by no means a gaudy or very ornate building, it will make an exceedingly appropriate termination to Donegall-street, and a desirable addition to Belfast street architecture.

Duncairn Church (opened in 1862) has, to meet the requirements of the rapidly-increasing Presbyterian population in its vicinity, been lately considerably enlarged. It originally consisted of a nave and transept at west end. By the recent addition of an aisle on the south side and gallery in the transept adjoining, about two hundred additional sittings have been provided. The new aisle which is 46 ft. long by 13 ft. 6 in. in breadth, is divided from the nave by an arcade of pointed arches springing from coupled iron columns, having foliated capitals of beaten copper, and terminating at angle formed by nave and transept by a cut stone pier, having engaged Silician marble shafts and carved stone impost. The aisle is divided into four bays by transverse pointed arches, springing from carved stone corbels at either side, and through these the thrust of the nave roof is transferred to the buttresses of new south wall. In addition to a double-light window in each of the bays in side wall, there are two narrow lights with trefoiled heads in gable next Antrim-road, and above them a rose window with plate tracery filled in with stained glass. Cross-current ventilators have been provided at each side of the roof at level of ceiling, which is formed on collar-braces at half height from wall plate. The new gallery is approached by a staircase formed in a circular turret, which covers the angle between the aisle and transept. The eaves course of turret is carved with conventional foliage, and the high-pitched roof is covered with bands of small red and green slates, and terminates with a wrought-iron weather-vane. The gallery front is of a new and simple design, the joists where they oversail the main beam being visible, and moulded, and, like the rest of the woodwork, stained and varnished. Wrought iron stanchions with beaten leaves secured to these joists support a moulded wood-rail and twisted iron bar, and behind this a lining of red cloth is fixed. The general contractors for the works were Messrs. Henry Stewart and Co. The metal castings were supplied by Mr. Victor Taylor, and the gas-fittings by Mr. Robert Stewart. The architects were Messrs. Young and Mackenzie.

The foundation-stone of a new Wesleyan Methodist chapel has been laid at Ormeau-road. The new chapel will be in the Venetian-Gothic style, and will supply accommodation for 650 persons. The dimensions are 58 ft. by 40, and the cost about £2,300. The plans will be prepared by Mr. W. Batt, jun., architect. Messrs. Rowley and Maunsell are the builders.

L A W.

IMPORTANT SANITARY CASE.

COURT OF QUEEN'S BENCH.

The Queen at the Prosecution of Thomas Rice v. the Divisional Justices of Dublin.—In this matter a conditional order had been granted for a writ of *certiorari*, directed to the defendants, commanding them to return into court certain proceedings in which they had convicted Mr. Rice of a breach of the sanitary law. It appeared that Mr. Rice was tenant of the house and premises known as No. 58 Bridgefoot-street. He did not himself occupy any portion of the house, which was let to several under-tenants, whom he could not remove until their tenancies had determined. Some of these tenants having been attacked with fever, Mr. Rice was, on the 19th of October last, served with a notice on behalf of the nuisance authority of the city of Dublin, in which it was alleged that by reason of his acts, default, or surfeasance, a nuisance existed, and he was required, within 24 hours, to abate it. On the 21st of October he was served with a summons to answer the complaint of John Halligan, Inspector of Nuisances, for non-compliance with the terms of the notice. On the hearing of the summons before Mr. Barton, Dr. Mapother deposed that fever poison was in the premises, and that the sewer required to be renewed, and the yard paved, and all the rooms disinfected with chlorine gas, that it would require a month's time to do these things, and that until they were done the place would not be fit for human habitation. Dr. Robert L. Swan, who had visited the place, swore that it was in a good sanitary condition, and much better circumstanced than houses of its class. It was proved that since fever had made its appearance in the house it had been whitewashed, and the sewer cleansed and repaired, and the rooms disinfected with chloride of lime. Mr. Barton, however, made an order prohibiting the use of the house for human habitation for one month, and he further directed that the sewer in the cellar should be renewed, the yard paved and sewered, and the rooms throughout disinfected with chlorine gas. On the 7th November, Mr. Rice was served with a summons under the 20th section of the 18th and 19th Vict., cap. 121, calling upon him to pay £1 12s. costs and expenses, and £4 penalties for disobedience of the order. On the hearing of this summons counsel for Mr. Rice contended that no order for the payment of penalties could be made, inasmuch as the order required him to do matters some of which—namely, preventing the house being used for human habitation—it was impossible for him, within the time limited, to do; and others which—such as the using of chlorine gas—he could not do without seriously endangering the lives of the inmates. It was further insisted that no penalties could be incurred until one month from the date of the order, inasmuch as that period was given within which the house should be made habitable; and also that the penalties, amounting to £4, were not due under, or in consequence of any order made in pursuance of the statute. Notwithstanding this objection, Mr. Barton made an order for the payment of £7 14s. costs, penalties, and charges. The Court of Queen's Bench was appealed to in last Michaelmas Term, and a conditional order for a writ of *certiorari* was granted to bring up the proceedings, with a view to the orders being quashed, on the ground that they were made without, and in excess of, jurisdiction.

Mr. Purcell, Q.C., and Mr. J. O. Byrne now appeared to show cause against making the order absolute.

Mr. J. A. Curran and Mr. C. Molloy were in support of the conditional order.

The Court disallowed the cause shown, and made the order for a *certiorari*, with costs.

A few words anent this case may be proper here. As much as we desire strict sanitary superintendence and due punishment to all flagrant offenders, we would never subscribe to any act of hardship against a citizen or householder who could show fair cause that he did all that was in his power to comply with the law. The sanitary authorities might have saved themselves much trouble if they acted with more care, and the magistrates would also be in less danger of exceeding their jurisdiction if the evidences put before them was not so often conveyed in the slipshod manner that usually distinguishes a great portion of the complaints that certain classes of officials in this city bring before them.

In putting down a nuisance there is no need for reckless statements or sharp practice. The common law is sufficient to cope

with the evils by which we are surrounded, and if only the most ordinary caution is exercised, there is sufficient power vested in the hands of the magistrates and the sanitary officers to drag the most cunning offender to justice without the risk of failure. In any case the public health must not be endangered by timidity any more than recklessness, even though a legion of attorneys and Queen's Council were to be engaged to prove wrong was right.

A GAELIC BANQUET.

WE pride ourselves betimes in this country for our love of national customs, manners, and language, but the efforts of even the Irish-speaking portion of our countrymen are very small in developing the study, or preserving the mother tongue. The Welch are far beyond us, and the Gaelic-speaking Highlanders, both in Glasgow and London, have their annual festivals. Even in the North of England, the Welch community have newspapers published for their use, in their native dialect. An attempt is at present making in London to establish a Gaelic Society, and rooms where Irishmen may meet to study and hear discourses in their native language. We would like to hear of its success. What is Dublin doing? need we ask?

The following is the menu of the annual dinner of the Ossianic Society of Glasgow, which took place a few days ago at a hotel in that city. We print, as given in the dress that is ill-suited to the language, but Gaels of Scotland have not a special alphabet of their own, though they have a deep reverence for a tongue that is almost identical with their kindred in Ireland:—

COMUNN OISEINEACH OIL-THIGH GHLASCHO.

An dinneir bhliadhna, air an 22 de'n Mhairt, 1872. An t-Urramach Raibeart Blarach, M.A., sa' chathair.

Deochanna Sainnte agus Orain.

1. A Bhan-Rìgh, 'san Teaghlach Rìoghail—Fear-na-Cathrach.
2. Air Feachd, air Muir's air Tir. Freagradh—Captain Macan-Deòir. Oran—Mr. Iain P. Caimbeul.
3. An Comunn Oiseireach—Fear-na-Cathrach. Freagradh—An Run-Chleineach.
4. Ceann-Suidhe a' Chomunn—Mr. Mac-a-Mhaighsteir.
5. Na Buill Urramach—Ain Fear-Ionmhas. Freagradh—Mr. Mac-'Illebhàin. Oran—Mr. Mac-Uilleam.
6. An t-Oil-Thigh 's a Luchd-Teagaisg—Fear-na-Cathrach. Freagradh—Mr. Mac-'Illembheith.
7. Cleir na h-Alba—Mr. Mac-Dhòmhnaill. Freagradh—An t-Urramach Aonghas Mac-Cuaig.
8. Na Lighichean—Mr. Iain A. Caimbeul Freagradh—An t-Ollamh Mac-'Illethuibh. Oran—Mr. Eoghann Caimbeul.
9. Na Gàidheil aig an Tigh agus Thairis—Mr. Mac-Eacharna. Freagradh—Mr. Sudharlan.
10. A'Ghòidhlig, 's na Bàird Ghàidhealach—Mr. Iain P. Caimbeul. Freagradh—An t-Urramach Alastair Camstron.
11. Na h-Oighean—Mr. Moireach. Pìobaireachd le Eoghann Mac 'Ille-Mhicheil.

STAMPING OUT THE VERMIN!

A LAST WARNING.

DESPITE of all we have written, several of our provincial newspapers and some of our morning dailies continue to afford advertising facility to the mock medical scoundrels whose head quarters are in London, and whose agents and disciples are in this city. We will not cloak the infamy any longer; we have given warnings enough, and on the heads of agents, receivers, and assistants let the execration and the penalties of the law be inflicted. It is a matter of wonder to us how our contemporary the *Freeman's Journal* and the *Irish Times* of this city can continue to publish the following and other advertisements. There is one weekly receptacle of abominable filth in this city, whose name need not be mentioned, which affords facility to betting swindling, money-lending swindling, obscene print and book swindling, and other unmentionable

traffic; but we do not wonder at the conduct of that disreputable print, but we do indeed wonder at the conduct of the *Freeman's Journal*. Here is a clipping from the latter journal:—

"A Guide to the Cure of Nervousness, by Henry Smith, M.D., of the University of Jena. A new medical work on the wonderful power of the new medicines for the cure of nervous debility, lowness of spirits, indigestion, stomach and liver complaints, local weakness, pains in the back. Instructions for perfect restoration to health and vigour, after electricity and all other falsely called remedies without medicines had failed. Illustrated with cases and testimonials. Advice and rules for cure by the new medicines, free by post for two stamps. Address, Dr. Smith, 8 Burton-crescent, London, W.C."

We have shewn on a former occasion who and what sort of characters are Drs. Smith, Hill, Hammond, James, Jenner, Watson, and the above different aliases under which two of the most notorious of the fraternity trade. They are nothing more than public swindlers obtaining money under false pretences, and one of them has already been before the police magistrates several times, and has been made to disgorge their vile plunder. Dr. Barnes (*sic!*), who was convicted a few weeks ago, was a disciple of Dr. Smith, Hill, or Watson. These impostors will tell their dupes that they hold diplomas and are regularly qualified M.D.'s, but their diplomas are all bosh. The following extract from the *British Medical Journal* will throw a little more light on the manufacture of these foreign diplomas:—

"We announce with pleasure that, in view of the unblushing and scandalous sale of diplomas by the establishments known as the "Philadelphia University of Medicine and Surgery" and the "Eclectic Medical College of Philadelphia," the Senate and Assembly of Pennsylvania have voted unanimously to repeal their charters. Europe has been flooded with these infamous documents, which have been more than once successfully produced in courts of justice as qualifications to practise."

If the present exposure will not be sufficient, we will on another occasion, and that very soon, publish the names of the canvassing agents and their addresses who transmit the above class of advertisements to the Irish journals, as a warning and example to others to follow more honest forms of livelihood. Protestant and Catholic clergymen have a right to put a fiat to such scandalous traffic, and prohibit the entrance of any newspapers into their houses, and ignore the advocacy of these papers in church matters which continue to print quack advertisements, no matter in what guise they are published.

Here is an advertisement which we find displayed in the *Irish Times*:—

"New Medical Publication, sent post free to any address for six stamps. Read Dr. Mulvany's Directory for Invalids, which explains the causes, symptoms, and mode of cure of all diseases to which the human frame is liable. This invaluable work will be found the most useful, interesting, and instructive treatise ever yet published, suited to all ages and both sexes. Medical Hall, 4, Christchurch-place, Dublin. Consult Dr. Mulvany personally or by letter free. Nervous debility and female complaints a speciality. Thousands of victims from all diseases bear testimony to daily. Agents wanted for sale of above treatise in every town in Britain."

We say now, as we said before, the advocacy of such journals in the cause of religion and education is a solemn and ludicrous farce. The love of "filthy lucre" has so eaten into the hearts of some journalists, like a cancer, it is difficult to make them feel conscious of their shame and the deep scandal their criminal knowledge and concurrence is causing.

Our next or final determination in this matter will shape itself in the form of

A BLACK LIST,

so let all understand—quacks, newspaper receivers, and others—what can and will be done by us in

STAMPING OUT THE VERMIN!

TO CORRESPONDENTS.

NOTES ON THE ECCLESIASTICAL ARCHITECTURE OF IRELAND.—The continuation of Mr. Brash's paper is unavoidably held over.

H. H. (London).—Received. Thanks, but the particulars have already appeared elsewhere.

CHRIST CHURCH CATHEDRAL.—The subject will be looked over and in no wise overlooked.

A RATEPAYER.—By all means get up the requisition and have the public meeting convened. On the second question, let counsel be employed, and an application made before any of the sitting magistrates, who are empowered to grant the order. The book must be submitted to inspection on demand.

THE STATE OF ENGLISH ARCHITECTURE.—Read *The Quarterly Review*, current number. The article is by a well-known hand who handles a good many architects and other works somewhat roughly. There is, at all events, a great amount of truth in the article.

LORD DERBY ON SANITARY LEGISLATION.—The remarks of his lordship were thoroughly sensible and well-timed as far as they went. We think, however, his lordship in giving credit to divers individuals, might have specially mentioned a few without even being invidious. The pioneers of modern sanitary reform are still alive, and it would only be mere justice to accord them the merit which is their due.

STEPHEN'S GREEN.—We have several times advocated the opening of the public squares of Dublin, and we are sanguine that despite of all opposition we will, at a date not very far distant, assist at their opening to the working classes.

MARSH'S LIBRARY.—There are several old and valuable volumes in this library of an ecclesiastical nature most useful as a reference, but there are matters connected with the history of this establishment that requires explanation. We trust on an early opportunity that we will be able to put our views before the public in the matter and in the interest of the citizens in general and students in particular.

AN ARCHITECT.—Write to the Hon. Secretary. We do not wish to say what our opinion is as to the future of the "Institute." We have no doubt but the Hon. Secretary will furnish you with full particulars as to the state of affairs.

NEWCOMEN BRIDGE IMPROVEMENT.—On an early occasion, perhaps, we will point out some matters connected with this intended improvement which seems to have been overlooked.

Provincial newspapers containing notices of new works should be forwarded immediately after publication by those who desire their wishes to be attended to.

ERRATUM.—In our article "On the Building and Ornamental Stones of Ireland" in our last issue, the name Professor Hall should read "Professor Hull." The forthcoming work will be published, as we previously stated, by Messrs Macmillan and Co., and will be entitled "A Treatise on the Building and Ornamental Stones of Great Britain and Foreign Countries."

BANKRUPTS.

Alexander Gray, of Townsend-street Foundry, Belfast, Co. Antrim, iron founder, trading under the style and firm of Alexander Gray and Company.

Michael Merigan, jun., of No. 10, Usher's-quay, City of Dublin, glass merchant.

INSOLVENTS.

David Hassell, late of Creighton-terrace, Townsend-street, City of Dublin, asphalt contractor.

Robert Morgan, late of North Queen-street, Belfast, Co. Antrim, trading as Lawrence and Company, Cement and Alabaster Dealers; previously of Hamilton-street, Belfast aforesaid, builder and timber merchant, part of the time carrying on business in co-partnership with John M'Creary, as builders and timber merchants.

Andrew Carty, late of Charles's reet, Sligo, Co. Sligo; previously of Castle-street, Sligo, Co. Sligo, builder.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—JAMES EPPS & CO., Homoeopathic Chemists, London. Also, makers of Epps's Cacaoine, a very thin beverage for evening use.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filled with vestas, at one penny. Any Tobacconist, Grocer, Chemist, or Chandler will supply it.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

RATES OF SUBSCRIPTION TO IRISH BUILDER.

(Town.)	s.	d.	(Post.)	s.	d.
Yearly	6	0	Yearly	8	0
Half-yearly	3	0	Half-yearly	4	0
Quarterly	1	6	Quarterly	2	0

Terms for Advertising may be known on application.

Post Office Orders and Cheques should be made payable to Mr. PETER ROE, 42, Mabbott-street, Dublin.

The Irish Builder.

VOL. XIV.—No. 298.

The Undeveloped Fuel Resources of Ireland.



IRELAND, with an immense area of bog land, and a nowise small extent of coal-fields,

yet its poor suffer grievously for want of fuel, and manufacturing industries are somewhat dwarfed and crippled. True, we must admit there is, to some extent, a lack of enterprise in this country; but even in parts of the island where energy is exemplified, there are great obstacles to contend against and overcome in consequence of the undeveloped resources of the nation. We are indebted to England for a very large supply of iron and coal—two things with which we are plentifully supplied ourselves. It is so with other mineral resources, concerning which we may speak on

another occasion in detail. The waste of fuel as well as its consumption for manufacturing and domestic uses, has become of late a most serious question, for the probable duration of our coal-fields may be calculated. If England does not husband her resources, her manufacturing prosperity may suffer in time; for coal, though not absolutely scarce, is becoming yearly more dear, because the difficulty of winning it from the bowels of the earth is becoming greater and greater. Very great depths have now to be worked, and the expense of the working, in machinery and gear, is of course increased. The principal coal-fields of Ireland, where blazing coal may be procured, are a small district in Antrim, a portion of the county Tyrone around Dungannon, and in the province of Connaught near to Lough Allen. Anthracite coal is plentiful in several districts of this country; it possesses a good deal of sulphur, and does not blaze, and of course contains but a small quantity of gas. Though deemed unfit for a long time for smelting purposes, it is not so, but may be used with advantage. Anthracite may be freed from its defects as a smelting coal by the use of vapour with it, and can also be used as an engine coal. It is more powerful than flaming coal, and from the quantity we have of it in this country, we might calculate on a supply for manufacturing purposes for several generations.

Anthracite is to be had in the Kilkenny district, between the Nore and the Barrow rivers, and ranging from Freshford to Cashel. In the province of Munster its extent is large, and it can be had in almost every part of the counties of Limerick, Cork, Clare, and Kerry.

The enormous quantity of bog land—nearly one-fourth of the entire island—is

capable of affording for many generations a supply of fuel both for manufacturing and domestic purposes. If utilised for foreign supply to any great extent, of course these fields would be perceptibly diminished, and an evil might be created; but for industrial uses within the confines of the island, a very long period indeed might be calculated upon. Turf or peat dried and broken up under pressure will be found most advantageous; it will also be found economical and most useful in river steamers. On the Shannon it has been used in the boats that ply up and down the river, and it will be also found to answer admirably for smelting purposes, for fine descriptions of iron work. If there were native iron works in the different parts of the provinces where bog land exists, it would be found that smelting could be most economically performed by the use of Irish turf. Turf and turf charcoal will be found to have an advantage over that of wood.

Even without wasting our fuel, this island possesses powerful advantages in its water-power, capable of (as O'Connell so often reminded his countrymen) "turning the machinery of the world." Though not exactly capable of doing all this, the water-power of Ireland, if properly utilised, would drive machinery equal to all the wants of the British Islands.

Professor Hull, the Director of the Geological Survey of Ireland, recently gave an account to the Royal Society of the coal-fields of England, shewing their great extent in former and remote ages, and the geological changes by which they have been diminished. In his map exhibiting the close of the Carboniferous Period extending a good way into Scotland, we have one great expanse of black or nearly all black surface shown. This area extends from Kent to the west of Devonshire, and from the east of Suffolk to the extreme point of Wales. With the exception of a narrow strip on the south coast, the rest is all black. A narrow belt appears stretching from Norfolk to Cardiganhire, where there is no coal, but all to the north of this is black.

Next comes the great geological changes, volcanic heavings, and depressions, and the disappearance of large tracts of coal, reducing their area to one-half at the beginning of the Permian Period. Again, we have other disturbances and changes until the Triassic Period sets in, by which time the coal-beds were crushed down by mighty forces to their present limited extent. It is possible that large areas or breadths of coal-fields have been forced down by changes in the earth's surface, and exist still, though buried below at immense depths. More than one sinking, of late years, has been made in the midland districts of England to get at the coal-beds known or supposed to exist. Whether coal exists at any certain depth below the chalk beds in the sister kingdom is a moot point. There are some geologists who are of opinion that coal does exist below the chalk, and that one day or another (after patient investigation) it will be found there. Professor Hull, who has alluded to this matter, does not agree with his brother geologists, and is of opinion that coal does not exist below the chalk formation.

The Mining Magazine and Review, in a late article on the waste and consumption of coal in households, said:—"Our national consumption, for strictly domestic purposes, may be estimated at forty-five millions of

tons per annum"!! This is certainly something enormous, and when we consider the want of economy that distinguishes the use of coals in our households and elsewhere, we need not wonder that coal is getting dear, and that serious thoughts are entering the heads of our manufacturers and others about the probability of the future supply.

In the matter of fuel this country is pretty well off, if only these resources were actively developed; by lying as they are, fiddled with, instead of worked in the national interest, it is no wonder we starve in the midst of plenty. Energy and capital, however, is required, and if this country does not supply it, undoubtedly, in time, strangers will think it worth their while to establish manufactures in our midst, and reap the solid advantages that are to be obtained by a small outlay of capital, combined with energy and perseverance.

THE BERLIN

ARCHITECTURAL COMPETITION.

CONNECTED with this great architectural competition, to which architects of all countries were invited to compete, upwards of a hundred designs, plans, sketches, and perspectives have rolled in from every side. Prussia desires to have houses of parliament which will be not only ornamental but useful, and as a work of art worthy of the age. She offers, indeed, a good prize to the successful competitor, and whoever he may be—foreigner or Englishman,—if he has not made a name already, the gaining of the prize will establish his reputation, if it be the result of fair and impartial judgment on the undoubted merits of the selected design. Of course there are many guesses and much interested criticism displayed in one channel or another since the designs and plans were opened to public view. Long since some of "our own correspondents" in the London morning papers profess to have had a full private view of these architectural designs, and they have taken the liberty of meting out praise, and giving the public the benefit of their non-professional advice, which of course must be taken for what it is worth. Some architectural contemporaries have already whispered abroad the names of their favourites, but we fear that some of these favourites will have reason to regret in having entered into this Berlin contest.

We will be grievously disappointed, in view of late events, if the Berliners allow any foreigner to have "a walk over" the Prussian lines, and snatch this architectural plum from the mouths of their countrymen. We fear very much, indeed, for the credit of British artists in this foreign competition; That one of them may come off second or third best, we do not doubt much, but it will be a miracle indeed if a German genius, whether the merit is his own or not, does not prove to be the selected.

Do we doubt German honour and dignity, it may be asked? Well, indeed, we have not a great deal of faith just now in German disinterestedness. Berlin will profit, no matter what may be the result; and though her people are not behind the English, but rather before them in technical and artistic education, yet modern German architecture and architects need improvement.

There are one or two matters that may have been lost sight of by English competitors in the Berlin competition. In the study of this subject it is possible that they have altogether ignored German traditions, taste, life, customs, and manners, for, strange as it may appear, German life, to some extent, is embodied in the architecture of the country. A building that might win general praise in these countries for its merit as an architectural competition would not equally merit the same verdict in the Prussian capital, even though not one of the orders were outraged, supposing it to be a Classic structure. It is not in the outward look, but in the internal arrangements that an edifice, whether a public or a domestic one, may please or dis-

please. The internal arrangements of public institutions differ with the tastes, wants, and customs of a people. This also holds good in respect to Gothic structures.

There are upwards, as we said, of one hundred competitors. The Germans number seventy, twenty-five of whom are residents of Berlin; the list includes some well-known names. Austria sends seven designs; Belgium and Holland, four; France, three; America, only one; from Italy come two—joint productions of two architects. Great Britain and Ireland is represented by seventeen competitors, among whom are George Gilbert Scott, Professor Kerr, Robert W. Edis, Edward W. Godwin, William Emerson, F. Lang, Edward Ellis, L. De Ville, P. E. Massey, W. J. Green, John O. Scott, W. W. Robertson, John Jones, Thomas Turner, of Dublin and Belfast, J. B. Waring, J. H. Spanton, R. Stark Wilkinson. Some of the English designs are joint productions, and the Gothic style preponderates. German taste tends to sober design in this class of architecture; but if we are to give any credit to the outbreaks of German opinion already through its Press, the florid and flamboyant specimens sent in by the majority of British artists will receive but little favour from the German element in the jury. Some of our contemporaries think that the composition of the jury offers a perfect guarantee of fair and impartial decision, but we are not at all confident of that. It may be stated that, though the Gothic design is the most likely to be the one chosen, yet there is a goodly number of those interested in the competition who prefer that the Houses of Parliament should be in the Classic style. Speaking of the designs, the *Cologne Gazette* seems to think that the English architects have set too much value on appearance. "Gigantic water-colour paintings, richly framed, represent, in the most interesting manner, the masses of buildings with many towers, or richly crowned with mighty cupolas with the effect of sun glances breaking through a grey clouded sky. The German architects, whose works are modest, and kept within narrower limits, will have their difficulties in presence of these fairy works as they come forth from the English fogs." If this is not a bit of sly irony, we do not know what is. Alas! many of them will have to be carried back again to the land of "fogs," and their authors will not unlikely, in some cases, be showing their sense of disgust at German competitions in the columns of the *Times*, or some of our architectural contemporaries.

The following extract may tickle the fancy of some people. We find it in the letter of the Berlin correspondent of the *Daily Telegraph*: "It may be, however, a subject of legitimate congratulation to British artists to know that incomparably the noblest in conception and most artistically carried out of all the designs exhibited is that of Mr. William Emerson, a London architect, whose 'perspectives' are simply two of the most charming little pictures that have been seen in Berlin for many a day; and I am informed—upon first-rate professional authority—that the internal arrangements of the glorious Gothic building which so grandly realises the prescription of the official programme in 'embodying the idea of a House of Parliament for Germany in a monumental sense' are as practically excellent as its elevation is ideally magnificent. Next in attractiveness to Mr. Emerson's Walhalla is a stately pile, surmounted by a lofty dome, that owes its being to the creative genius of Mr. Scott; the third and fourth honours will, I fancy, be assigned to the designs of a Berlin and of a Hamburg architect; and the fifth prize may possibly fall to the share of another Englishman, whose drawings are hung between those of Mr. Emerson and those of Mr. Scott. The jury, I fancy, would be shrewdly puzzled to select from the remaining ninety-six 'Entwürfe' a sixth design that, if put into stone or bricks and mortar, would be pronounced by the world's verdict to be worthy of the great purpose to which the greatest nation

on the continent of Europe has resolved to devote several of the millions it has won in the great game of war."

We may easily judge that "our own correspondent" is a first-rate art and architectural critic, from the appropriate architectural phrases which he uses;—"glorious Gothic building," "charming little pictures," "stately pile," "lofty dome," "noblest in conception," &c.

Mr. Emerson ought to be obliged to the correspondent of the *Telegraph* for the critical acumen he displays in respect to his "perspectives;" and Mr. Scott must be under a eternal obligation for the happy allusions to his "stately pile" and creative genius. We pity the chances of a Berlin or a Hamburg architect after the appearance of the above. When will these scamps of literature keep to their own profession, and cease their private viewing and interviewing, and scribbling about subjects they know no more about than cows do of eclipses?

It is immaterial to us who wins in this foreign contest, and we would only be too glad indeed, that a British architect was so fortunate as to carry off the coveted prize. We protest, however, against this intermeddling and attempts at forestalling professional opinions. Who is this person that his dicta must be intruded on us in the following fashion? "And yet, of the hundred plans now hanging on the Academy walls, only five seem to me to be worthy of anything like serious attention at the hands of the jury convened to decide upon their merits. Three of these designs are by Englishmen, two by Germans." He must have a high opinion indeed of himself when he can thus pronounce, after a walk round the room, that "only five seem to me to be worthy of anything like serious attention at the hands of the jury." What need is there for a jury at all after this? Why not send for this concentrated jury in one—this "Jabborwock Special"—to pronounce the final decision, and let him earn the commission which he seems to stand in need of.

The English and German architects have supplied the largest number of designs, and the French and Italian competitors reckon next. We will be anxious to hear the result, for we have no doubt that among the English designs there are some of which their authors need not feel ashamed. The prizes were worth a contest—worth the trouble and expense that had to be incurred, but we are much astray in our opinion, if there is not injustice in store for more than one worthy competitor.

MANSION HOUSE DECORATIONS.

HOWEVER we may differ with men betimes on public questions, it does not prevent us from giving them credit when they say or do anything useful. When the question of providing a Convalescent Home for the city was before the Corporation at a late meeting, and when the delay that has taken place over the matter was censured, Mr. John Byrne spoke some words for which he must be complimented. He said:—"The committee had spent an entire month in trying 'how not to do it'—how not to do what they had been appointed to accomplish. He insisted that they had a fund which would be applicable to the establishment of a convalescent home, and that was the sewer rate; so that if the Corporation were willing that this arrangement should be carried out, they could easily do so, instead of spending large sums on decorations in the Mansion House, in giving balls there and such like, the expense of which he maintained should be properly defrayed by the occupant of that establishment for the time being. He objected to gentlemen being elected to fill the office of lord mayor who never should have taken that position. The primary allocation of the public funds should be to the preservation of the public health, and the making of effectual sanitary provision; and he submitted that the poor were entitled to have a convalescent

home built for their convenience, in preference to laying out large sums of money on decorating the Round Room and giving balls and other entertainments." True, every word of it; but when, need we ask, has the care of the poor been made a primary consideration with the Corporation of Dublin? In London, when a new lord mayor is voted into office, he shows, by his personal outlay, a sense of the honour which the city has conferred upon him. Indeed, he is expected to encourage trade in the city, and show hospitality at the Mansion House, by drawing upon his own funds and not on those belonging to the public. When the late John Reynolds was elected to the office of lord mayor, it was currently reported that there was such an absence of anything warm or comfortable in the lower department of the mansion house, that the rats had contracted the rheumatism, and the mice the cataplexy. Has the present chief magistrates any stronger claims on a pull at the public purse than Mr. Reynolds? We hate to hear the cant about supporting civic dignity with taxation of 10s. in the pound, and sickness and want rife in hundreds of humble homes. Perhaps we will have another new knight shortly to keep company with the other impecunious knights whose poverty instead of their principles, we are told, compels them to resort to such a number of political shifts to keep their heads above the water.

THE BUILDING TRADE "STRIKES."

THERE is some talk of an increased demand being made on the part of some of the building operatives this year. Dublin, however, is not overburdened with the weight of building contracts, and neither is there a scarcity of hands. The carpenters, masons, and plasterers of Waterford struck for an increase to 28s. per week. Some other of the provincial towns, we hear, are preparing to follow suit. Whether the "nine hours' movement" is likely to be inaugurated on this side of the channel we are not prepared to say, but the influence of the English strikes is already affecting the relations of labour in this country in its lowest strata. A great many Irish agricultural labourers have gone on "tramp," if they have not actually gone on strike; and we hear of them being settled down in holdings in the midland counties of England.

IRISH ARCHITECTURAL ASSOCIATION.

IT is with pleasure we learn that the project of an association, having mainly for its object the bringing together the junior members of the profession has been favourably received, and is likely to prove useful. There existed for some time, in connection with the "Institute" a "Class for Architectural Study" which, for a time, was well attended, but its meetings have been latterly suspended. Amongst the objects proposed to be attained by the new organization will be the deriving of mutual benefit from meeting together at stated periods; the discussion of matters bearing on the profession; and the visiting occasionally of ancient buildings, and works in progress. As will be seen by a communication on another page, a committee has been appointed for the purpose of arranging details previous to general meeting, to be held next week.

THE VIENNA EXHIBITION OF 1873.—The Japanese government has promised to take a considerable part in the Universal Exposition at Vienna in 1873. Specimens of natural produce will be sent, including a hundred specimens of tea, with tea trees in all stages of their growth; also, manufacture of silk, porcelain, paper, papier maché, and other. A Japanese house will be erected in the park, and specimens of objects used in the worship of the country will be exhibited.

NOTES ON THE ECCLESIASTICAL
ARCHITECTURE OF IRELAND.BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A. SCOT.

CLONFERT.

CLONFERT, a parish, and anciently a bishopric, is situated in the barony of Longford and County of Galway. The church, formerly the cathedral of the diocese, is situated not far from the Shannon, and within three miles of Eyrecourt and nine of Portumna. This place owes its reputation originally to St. Brendan, the son of Finlogha, as we find by an entry in the *Annals of the Four Masters*, as follows:—"Cluain-Fearta was founded by St. Brenainn." In the *Annals of Ulster* we have the following at A.D. 563:—"In this year Brendan founded the church of Cluain-ferta," but we find the same entry also at A.D. 557. The *Annals of Clonmacnoise* records it under A.D. 562. Brendan, the son of Finlogha, was of the Munster race of Cian the son of Fergus (as I have stated in another place). His life was an eventful one; his death is recorded in the *Ulster Annals* at A.D. 576, and also in those of the *Four Masters* at the same date, where it is stated that he died at Enaghduine on May 16th, and that he was interred at "Cluainferta-Brenainn." Ware states at the age of 93. Clonfert is derived from *Cluain*, a meadow or a retired spot, and *Feart*, a grave. In the *Annals* the place is invariably named after the saint, *Clonfert of Brendan*. Here this eminent man founded a church and a school of learning, which afterwards became famous. He does not appear to have been the first bishop of the see, as he is invariably styled abbot. The first bishop appears to have been Moennu, whose death is thus mentioned in the *Ulster Annals* at A.D. 571:—"Moennu, bishop of Cluainferta of Brendan rested;" his obit is also recorded in the *Four Masters* at A.D. 570, where he is named St. Maeineann; his festival is on March the 1st. The various annals contain numerous notices of the obits of abbots, bishops, and learned men connected with this place, but nothing that can throw light on the history of its ancient remains. The cathedral appears to have been subjected to the usual disasters of all religious establishments in this country. It was burned in A.D. 744, 842, 1015, 1045, 1164, 1179, and plundered in 949, 1031, and 1065; at A.D. 1541, the *Four Masters* record the destruction of the great church and monastery. The great church, however, was not destroyed, as it exists to this day, and no part of it appears later than the fifteenth century. The *Annals of Innisfallen* has the following interesting notice of this place at A.D. 824:—"A council of the men of Ireland in Clonfert Brendan, and Nial son of Aedh, king of Tara, gives tribute to Phelim, son of Criffin, for Phelim was that day full monarch of Ireland, and so sat that day in the cathedral (chair) of the abbot of Clonfert." A few years after a calamity befell the church of Brendan, as we find in the same annals at A.D. 852:—"Earl Tomar destroys Clonfert, so that Brendan killed him three days after his return to camp."

At this period the coasts and harbours swarmed with the pirate Northmen, who sailed up the large rivers in their flat-bottomed galleys and plundered the country at each side, with an especial eye to the religious houses. The attack on Clonfert and death of Tomar is detailed in "The Wars of the Gaedhil with the Gaill," and as it describes one of many such incidents occurring at that time in Ireland, it may be of interest to the reader; it is given under the year A.D. 853:—"There came after that Ossill, son of the king of Lochlainn, with another fleet, and the greater part of Erin was plundered by them. These two fell by the men of Erin; and this Ossill, with five hundred men along with him, fell by the men of Erin in Mumbain in one day. It was in that year that Colphin, and the fleet of Dun Medhoine, were destroyed at Cen-Curraig; and the slaughter of them was continued from Cen-Curraig to Lismor, and numbers of them were killed by

Rechtatrat, son of Bran. It was in that year that Earl Tomar was killed by St. Brendan three days after he had plundered Cluain Ferta. It was in that year that Aedh Finliath, son of Niall, gained a battle over them at Loch Febbail, where there fell twelve hundred heads of them in one spot; and all their wealth, and all their jewels, were taken." There is some little confusion in the chronology of these annals, as might be expected, for we find that the *Chronicon Scotorum*, in its short and pithy account of this transaction, has it under the year 848, as follows:—"A battle gained by Olchobar, king of Mumhan, and by Lorcan, son of Cellach, with the Lagenians, over the Gentiles, at Sciagh Nechtain, in which Tomrair Earl, tanist of the king of Lochlainn was slain and twelve hundred along with him."

The Cathedral of Clonfert, like others of its class in Ireland, is of very moderate dimensions and of simple arrangements. It consisted of a nave with a western tower in the centre, a chancel, and transepts branching nearly at the centre of the nave, with a sacristy at the north side of chancel.

The Nave.—The entrance is at the west end under the tower; it forms a slightly projecting porch with a high-pitched gable, and, considering its age, is in a fine state of preservation. Its original dimensions were 5 ft. 3 in. wide, clear of inside jambs at bottom, and 4 ft. 8 in. clear of ditto at springing of arch, its height being 7 ft. to top of capitals; width from out to out of external piers 13 ft. 4 in. at base. By these dimensions it is evident that in the construction of this beautiful portal, the ancient tradition of inclining jambs was preserved. The door-head has six orders of arches, resting upon a similar number of jamb-shafts and piers at each side. Three of these shafts are circular, and two semi-octagonal—these, with the external and internal rectangular piers, have richly-sculptured capitals, having square abaci with dogs' heads in the hollow under, the bells shewing grotesque heads—human and animal—with a variety of interlaced work. The entire surfaces of the piers and jamb-shafts are covered with an amazing variety of ornament, shewing a marvellous fertility of invention. Being incised, much of it is worn and defaced, but the design of every separate member can be discerned. The bases are unfortunately buried in the earth, and cannot at present be described. The external member of the arch is a boldly projecting label, carved all over in an interlacing pattern, the terminations of which are composed of grotesque animals resting on the capitals of the external piers. The next order is enriched with a line of semi-globes (close set), their surfaces carved into a variety of leaf patterns, very pleasing and ingenious. The next has an undercut moulding with a line of enriched circular pateras. The next is composed of circular pateras and flat rings in bold relief, all richly carved. The next order has a cable pattern on the arris, the surface being ornamented with oblong pateras of varied design, and deeply undercut. The next has a torus on the arris (undercut), with a line of dogs' heads of large size, close set, and represented as biting the torus moulding. These heads are remarkably well cut, and exhibit a wonderful variety of expression. The inner member finishes with an enrichment of leaves. It is to be remarked, that the soffets of every member, as well as the faces, are carved; in fact there is not a square inch of any portion of this beautiful doorway without the mark of the sculptor's tool, every bit of the work being finished with the greatest accuracy. Some of the heads of the capitals have a strong resemblance to those from the chancel arch of Tuam Cathedral. The gable is of very acute pitch. The barge course is carved on the edge into a double rope-moulding springing from animal figures (nearly defaced), and terminating at the apex in a finial composed of three human heads. The tympanum over the door-head has an arcade of five semicircular-headed panels, having moulded arches springing from small shafts, with caps and bases, all originally enriched

with carving, now much defaced. The archod heads have each a human mask, the whole enclosed between two carved stringcourses. The upper space is divided into triangular panels by diagonal lines of flat mouldings. These panels are alternately filled with human heads and foliage in very bold relief.

An alteration has been made in this doorway by the insertion of an additional member to both jambs and arch, consisting of a square reveal and external chamfer. The chamfer is broad, and shews two ecclesiastics carved in low relief, standing upon brackets, holding pastoral staves. They are not mitred, but wear round flat caps. Their costumes, accurately delineated, differ. These figures are 21 in. in height. A running stalk, with a Tudor leaf, occupies the rest of the jambs and arch, finishing at the crown with an angel having outstretched wings. This is evidently fifteenth-century work. This alteration narrows the door to 3 ft. 3 in. wide. It is executed in limestone, while the rest of the doorway is a fine, hard, reddish-gray grit-stone. The inside pier of the original work still remains, and is carved all over.

I have been thus minute in describing this beautiful porch, which, in point of design and execution, I have not seen excelled by any similar features in these islands. Romanesque and Norman porches and doorways, of course, exist of grander proportions, but not exhibiting the fertility of invention and beauty of design that this does. I had to relinquish my intention of making a drawing of it—nothing but photography could accurately represent the wonderful variety of its ornaments. This doorway has been thought to be an insertion, on account of the tower being erected over it, but such is not the case. A careful examination will show that it never has been disturbed since its first erection. The tower is rectangular on plan, with an embattled parapet. It is divided into three stages by two chamfered stringcourses. The first stage has no light; the second has a two light ogee-headed ope under a square moulded label on each face; the third has a narrow rectangular ope on each face. This tower has evidently been built within the body of the nave, its front wall resting on the original west gable. At each side of doorway is a narrow ogee-headed lancet. The flank walls terminate in square buttresses which appear to me to be such as are usually found on ancient churches.

The nave measures 54 ft. in length, and 27 ft. 6 in. in breadth, clear of walls. All the existing window-opes are modern; the north transept is gone; the walls of the south transept stand. They were connected with the nave by pointed arches having two chamfered members resting on chamfered piers which have moulded impost, the inner arch member springing from moulded corbels. The remaining transept measures 22 ft. by 22 ft. clear of walls, which are 2 ft. 6 in. thick. It was lighted by a narrow semicircular-headed ope 8 ft. high and 9 in. wide externally. These arches are built up and modern windows inserted. The chancel arch is 12 ft. wide; it also is pointed; it has two chamfered members; the piers also are chamfered, and have a carved impost. On the jambs of these piers are carved some curious devices, as angels bearing scrolls under canopies, in sunk panels; and a mermaid with the traditional comb and a circular mirror. The inner member of the arch springs from corbels, composed of angels bearing shields. All the nave work is of limestone, and is well executed. The chancel measures 27½ ft. in length, and 22 ft. in breadth. It is evidently the oldest part of this church, and is remarkable for its beautiful east window. This interesting feature is a couplet of semicircular-headed opes, measuring 8 ft. high from sill to soffit, and but 12½ in. wide externally, while internally, owing to the great splay of the jambs, they are 7 ft. 6 in. wide. It is built of a dark close-grained limestone of great hardness and durability, in courses of from 7 in. to 16 in. in height, most of the stones being the

entire breadth of jamb, which is 5 ft. on the splay. The angles are moulded internally and externally; the splays have each two semicircular-headed panels; the inside sills finish with a string, upon which rests the moulded bases of slender shafts, having carved caps, from which spring the arch members. The design of this window is exceedingly chaste and beautiful, the mouldings simple and effective, and the workmanship superior to anything I have seen either of ancient or modern times. The mouldings are finely wrought, and the jointing of the stone-work so close that I cannot believe they were ever worked by tools. There is no appearance of mortar joints, the ashlar must have been rubbed on their joints to make such close work. In the south wall of chancel are two windows (square-headed) with labels; they are of perpendicular character, are of different dimensions, and set at different levels. There is also a square recess or aumbry in south wall, close to east end, 18 in. by 16 in., and 12 in. deep; there is no piscina.

It is quite evident that the chancel and the porch are of different dates. The east window is of the same type as that of Temple Righ, at Clonmacnoise, the date of which I have been able to fix. It is more ornate in the use of mouldings, and shews slight attempts at carving in the caps and bases of its slender shafts; it may, therefore, be of somewhat later date, perhaps the latter part of the tenth or commencement of the eleventh century. The grand portal, on the contrary, is one mass of carving of the richest and most varied design, and was probably erected in the twelfth century. Ware, in his account of this see, is disposed to assign its erection to Bishop John, an Italian, who succeeded in 1266, and resigned in 1296. He writes:—"He is reckoned amongst the principal benefactors of his church of Clonfert; and perhaps the fair frontispiece at the west end of the church, adorned with a variety of statues of excellent workmanship, was built by him."—(Ware on Clonfert.) The venerable antiquary is, however, wrong in his surmise, the work is certainly a century earlier, and I am disposed to assign it to Peter O'Mordai, a Cistercian monk, and the first abbot of Boyle, when that order (but recently introduced) had their home at Grelachdinach. The *Annals of Boyle*, at 1161, state, that in this year the Cistercians established themselves at the above-named place; and that Peter O'Mordha was its first abbot. He became bishop of Clonfert, and was drowned in the Shannon, as is recorded in the *Annals of the Four Masters* at A.D. 1171. The introduction of the Cistercian order gave a great impetus to ecclesiastical architecture, as I shall more specially allude to hereafter. All their principal abbeys were erected in the Romanesque style, and I am therefore disposed to believe, that Bishop O'Mordha or More erected a nave to this cathedral in a very rich style, which was subsequently injured and partially rebuilt in the latter end of the fourteenth or commencement of the fifteenth century, when this portal was preserved with the west gable. There are many interesting sepulchral memorials let into the floor of the building—some entire, some fragmentary, many defaced. I copied a few, which, to rescue from the oblivion to which they seem destined, I here desire to place on record. Under the tower is a slab bearing a Calvary Cross, in relief, the arms and head terminating in fleurs-de-lis; the inscription:—"Hic Jacet Dno Joes et Ricard^o Callanan^o Phici qui hunc tumulū fieri fecerūt et J C S Obiit 13 Mar., 1612 I H S Maria." Near it is another slab with a floriated cross, part of which is hidden by a receptacle for coal; it is inscribed " * * * Rogerus Horan pre opus sue tivis hūc tumulū sibi acroseis suis feci fieri ano doni 1616." In the floor of the nave is a slab inscribed to Bridget Shirley, "She died at Clonfert on Christmas day 1698."

At the north side of chancel is a sacristy, entered by a small pointed doorway; it measures 24 ft. by 13 ft. clear of walls; it is

covered by a pointed vault, and is lighted by a couplet window in north gable of modern character. In this apartment I found a fragment of a slab, incised with a beautiful cross of the early type, bearing the name of BECTAIN, in Irish characters. Another slab has the following:—

HIC JACIT CIVIS • VIRTUTI
BVS MVNDVS • INDIGNVS • FV
IT • ANNA DESMYNIER
ES • CONIVX • CHARA
CAROLI • RENIRY • FLIA
LVDOVICI • DESMYNIER
ES • OLIM CIVITATIS • DVB
LINI • PRAETORIS QVÆ
VLTIMA • DIE • XBRIS AN
NO 1702 MORTALITA
TEM • PRO • IMMORTALIT
ATE MVTAUIT.

I have no doubt, were this church and the cemetery around it carefully examined, that many interesting memorials would be discovered.

TUAM.

The first church at Tuam appears to have been founded by St. Jarlath, the son of Loga, an eminent missionary of the primitive church of Ireland, to whom the spread of the gospel in the province of Connaught is mainly attributable. He flourished in the early half of the sixth century, and Colgan gives the date of his death at A.D. 540, but upon no authority. Ware, with his usual caution, thinks that the date has not been ascertained. Usher places him fifth in the second order of Irish saints; and as this order commenced with the reign of Tuathal the Acceptable, who ascended the throne A.D. 534, we have some grounds for fixing the period in which he lived and laboured. His biographers represent him not only as a zealous and ardent preacher of the gospel, but as an ecclesiastic of great learning and natural talents. He founded, as was then the custom, a monastic school at Tuam, in the County Galway, anciently known as Tuaim-da-Ghualann, which became famous not only in his own day but for ages after. St. Brendan, of Clonfert, is stated to have studied in this seminary under its eminent founder. The successors of St. Jarlath are not named as bishops until 1085, when we have a record in the *Annals of Four Masters* of the death of Aedh Ua h'Oisín, who is there stated to have been Archbishop of Tuam. Before his time they are named abbots, see A.D. 776, 879, 900, 1032. We have few historical notices of this place of any importance; the *Chronicon Scotorum* contains no mention of it; the *Annals of Four Masters* has a number of incidental references, but of no material interest, excepting the usual burnings and devastations noted at A.D. 1137, 1155, 1164, and the obits of some of its dignitaries, from 1085 down to 1602. Many years after the death of St. Jarlath his remains were sought for; his bones were placed in a silver shrine of exquisite workmanship, and deposited in a chapel at Tuam, from thence called Teampuil-na-Scrín, or the Church of the Shrine. Turlough O'Connor, king of Ireland about A.D. 1140, founded here the priory of St. John the Baptist, for Augustinian Canons; and Ware states, that under the archiepiscopacy of Cathal O'Duffy, a great synod was held at Tuam in A.D. 1172, at which time three churches were consecrated.

That a cathedral of some importance existed at Tuam we have some means of ascertaining, though no portion of the ancient fabric now exists, with the exception of two features. When Dr. Petrie wrote his valuable work, the chancel of a Romanesque building was standing connected with a nave of late mediæval date to which it formed a porch. The cathedral has been rebuilt, and I am happy to find that the Romanesque arch of the chancel and the beautiful east window have been preserved to the same uses in the new structure. The chancel, as described by Dr. Petrie, was 26 by 26 ft. out and out of walls, which were 4 ft. thick. Its principal features were its arch, which was 15 ft. 8 in. wide, clear of jambs, and 16 ft. high to soffit. It was composed of six orders springing from

an equal number of shafts at each side. The arch members are all richly carved, as shewn on plate, which represents a portion of the detail from Dr. Petrie's work. The most interesting feature, however, is the form and ornamentation of the jamb-shafts; these, with the exception of the external ones, are engaged pillars, having capitals richly ornamented with interlaced patterns and grotesque heads under a moulded abacus, which, on the external piers, was continued as a stringcourse. Two of the caps from Dr. Petrie's work are shewn on plate. The use made of the guilloche is noteworthy, and the general design evidences considerable originality, having no prototype in French or Anglo-Norman architecture. The bases of the columns are moulded, having a torus and a double plinth. The east window is a triplet, having semicircular-headed opes; the internal piers, arches, and jambs being profusely enriched with ornament, incised, and consisting of panels of interlaced work (diamond-shaped panels filled with foliage), human heads, and other subjects in great variety; a richly-carved label surmounts the whole. If we judge by the fragments that remain (for both chancel, arch, and east window, are much mutilated), the original church must have been a very richly-finished work, and of unusual size for the period. Dr. Petrie ascribes its erection to the Abbot, Aedh O'Hoisín (Heshen), who assumed that office in 1128, and became archbishop in 1150. This, however, is but conjecture. The name of this distinguished ecclesiastic, with that of a contemporary king of Connaught (Turlough O'Connor), is to be found on the base of the ancient cross at Tuam; but this does not make him the builder of the cathedral, though Dr. Petrie seems to consider it a sufficient reason. Another eminent cleric of the same name, who was also an archbishop of Tuam, died A.D. 1085.—(*Annals of Four Masters*.) The date of the original building was probably late in the eleventh or early in the twelfth century.

NOTES ON

EARLY GARDENING IN IRELAND.

FOURTH PART—Conclusion.

It was customary some years ago to boast of the squares of Dublin, and Merrion-square was accounted superior to anything of the kind in London. Unfortunately we cannot boast much now of the manner in which our public squares are managed or kept. In plantation arrangements, arboricultural or horticultural improvement they are half a century behind the age. Their size alone, and the service they perform as healthy lungs to the metropolis, are their only merit. The squares of London are in general small, but some of them are kept in decent order. The squares or gardens in Paris are examples both for London and Dublin, but our city stands more in need of the lesson. Pleasant walks, tasteful fountains and lakes, numerous seats for poor and rich to rest upon, and free entry at all times during the day, are the characteristics of the Paris parks and gardens. Added to this, the high cultivation and beautiful arrangement of flowers and shrubs which distinguishes the gardens of Paris, is matter of wonder and a source of joy. London, of late years, has given evidence of great improvement in arboricultural and horticultural improvements in her parks, and in their general management. Dublin, however, is a laggard, and the beauty of the public gardens (public fields or shrubberies rather) of this city is nearly all owing to nature, and very little of it is attributable to artistic cultivation. Neither Merrion, Fitzwilliam, Mountjoy, Rutland-square, or Stephen's-green have, ever since they were first formed, been kept in passable decent order—in fact, they have been a disgrace to our city on many occasions. They were laid out originally on a bad system. The plants and shrubs were planted in the worst of soil, for these squares were formed of the clay dug from the foun-

dations of the houses around, mixed with all kinds of *debris*. Very few evergreens were planted in these squares until many years had passed over, and the original stock of shrubs may yet be traced in antiquated specimens of laburnums, lilacs, dogwoods, thorns, &c. The grass of these squares formerly was seldom or ever properly mowed, and even at present very little care and attention is given to this matter, or to the gravelling or rolling of the walks. We remember the long withered grass of one year being allowed to rot away until its place was supplied with the growth of the next year; thus one year's growth acting as a manure for the next. It has often been a wonder (in days past) that cows were not taken in to graze by the week! If they were, we are certain some of the dairymen of Dublin would have availed themselves of the opportunity.

The spirit of exclusiveness that characterises the management of the public squares of Dublin is most reprehensible. One and all, they should have been long since opened for the free admission, enjoyment, and recreation of the poor as well as the rich. Both the College and the Phoenix Parks are susceptible of great improvement, and we think the public should be allowed free admission to the former, if not unconditionally, at least subject to but few exceptional conditions.

Our people are not as fond of flowers and gardening as they should, and in towns, or in their suburbs, the commendable attempts at gardening are exceeded by the frightful examples that crop up around us on every side we look. Indeed, the absence of any attempt at gardening in numerous places where facilities exist, is a very marked and disheartening feature. Landlords and owners of house property generally stand in their own light by neglecting to put the gardens in connection with their untenanted houses in proper trim. If they paid a little attention in this respect, and by a judicious display of shrubs and flowers, they would not so often have empty houses lying for months upon their hands. Upon architects also a duty devolves in laying out and planning for house property, whether the design be a gentleman's mansion or plan for the construction of a number of detached or semi-detached villas; they have it in their power to enhance the letting value of the house property by considering the gardening question, and designing with a view to the cultivation of plants and flowers in the grounds allotted, or in the construction of conservatories.

In connection with the dwellings of the wealthy, of late years, the province and practice of the architect is very much enlarged, and his relationships to gardening are more close. His assistance is required in the construction not only of green-houses, conservatories, but of hot-houses, forcing-houses, pineries, orangeries, and other cognate buildings. In cities and towns, particularly of late years in England, a system of window gardening has been developed, and has received much encouragement from an architectural and sanitary contemporary in the English capital. The taste should be directed on all sides, and every encouragement given to it that it may expand and fructify. What more cheering sight could there be than to see in the wretched lanes and alleys of our cities and towns, a care shown in the cultivation of flowers either on the window-cills of the poor, or in their little patches of garden, which is, indeed, often to a lover of flowers so situated, like an oasis in the desert? The poor man who is really fond of flowers will be found to be fond of cleanliness—

"A lover of flowers,
A hater of filth."

Flowers and plants will wither and die without care when subject to artificial cultivation, so he who bestows the needful care to their wants will be generally found to bestow on his own domestic belongings a similar care. No one, we think, can dispute the effect that modern gardening has had

in elevating the tastes and morals of the people. The establishment of art unions and picture galleries has developed a taste for true art, and the establishment of horticultural shows, the opening of public parks and gardens, has developed a love of flowers and gardening, and an increased love of nature. There can be no doubt that gardening is a most useful sanitary agent, and that flowers are a disinfectant in many situations. Near to poor and over-crowded localities in the sister kingdoms, where public parks and gardens have been opened for a time, the mortality decreased, and the general health of the inhabitants greatly improved. Modern sanitary reform has achieved many triumphs for the human race, and it is to the labours of some architects and engineers we owe much of the benefits we are enjoying, both in the establishment of public parks, baths, and fountains, but in systems of warming, ventilation, drainage, and constant water supply, matters closely connected with gardening wants as well as household and human ones.

Henceforth gardening and architecture must be allied and work in unison for the benefit of the human race. The architect will need to have a knowledge of gardening wants, and the gardener cannot do without the services of the architect. As time moves on they will be found to be indispensable to each other, unless, indeed, architecture and building sinks back into *excavation*, and gardening once more merges into the fields and valleys, and the wild flowers are

"Born to blush unseen,
And waste their sweetness on the desert air."

We alluded, in a former paper, to the existence of nurseries in Dublin. The principal ones during the present century have been on the south side of the city, at Cullenswood, Ranelagh, Portobello, or in that district; and at Inchicore, on the north side of the city, there have been ones of lesser note, partaking, however, more of the character of the market garden and orchard combined than the nursery. North of the Tolka, at Richmond, for several years during the present century, there has existed a small nursery. Some of the nurseries of the County of Dublin have been established and carried on by well-known seedsmen; but one and all have never been as successful as they ought to have been. Not that sufficient care and attention has not been devoted to the management of some of them, but that the rise and progress of gardening has been so slow, the patronage has been small, and confined to the rich. Whenever a true and healthy love of gardening sets in, and the people in general take to the cultivation of flowers, plants, shrubs, &c. in connection with their homes and their surroundings, the nurseries of Dublin will be more prosperous.

We cannot conclude our subject on "Early Gardening in Ireland" better than by giving an account of the most elaborate and recent attempt made in this country at gardening on a gigantic scale. It may be characterised as an effort at solving, for the first time in Ireland, or rather working out, a great horticultural problem. The man who has undertaken to carry out this experiment is Mr. Mitchell Henry, M.P. for Galway, and the ground chosen—the wilds of Connemara. At one end of the Pass of Kylemore, Mr. Henry is at present completing a castellated residence. The exterior of the house is built of Dublin granite, and there are facings of Ballynahinch marble and Ballinasloe limestone. Caen stone is all used in connection with the hall and gallery.

In respect to the gardening operations, too much cannot be said in their favour. Five years ago there was nothing to be seen but a wild waste of furze and heath; and there were physical difficulties to be overcome, for the Pass of Kylemore is swept by the wild breezes of the Atlantic, which is nowise a favourable acquisition to floral culture. To construct this garden in the West a bog had to be conquered and thoroughly drained, and three miles of hot-water pipes laid down. Mr. Garnier, as head of the staff, laid out

the garden, and twenty-one houses were erected from designs by him, and roofed by Cranston of Birmingham. The garden comprises six acres of ground, encompassed by what is termed a "stepped" wall, in consequence of the undulating character of the ground. The centre is divided by a path, and the garden (in two divisions) slope towards each other. On one side of the terrace are placed the entire of the houses, and they can all be passed through under cover. The garden is a parallelogram in shape, and every modern improvement is embraced in construction. Here may be seen tropical fruit houses, orangeries, pineries, vineries, three peach houses, a house for the plants of commerce, detached propagating and exhibition houses, cucumber and melon houses, and others. The flowers are planted in masses on the northern slope, and are interspersed with various evergreens; gladioli, of a variegated kind, crop up from the opening, and masses of pampas grass with hollyhock, are in combinations. Of course this is an autumnal or late summer picture of what may be witnessed. Hot-air chambers have been formed under all the houses, for forcing mushrooms, seakale, rhubarb, and other vegetables, and for heating the soils for potting in the winter time. The *sedum spectabile* has been made good use of by Mr. Garnier to form a margin between the wall and the flower border which makes a circuit of the walls; it is a plant of good growth, and lasts until November. It first comes out white, and changes to pink afterwards. The whole of this garden in the West is in grass, with the spaces between the beds of about five feet, thus making every object stand out distinct. The glass-houses form a very fine group, and taken in connection with backing of mountain cover, and groups of trees, purple heath and fern, afford a most pleasing sight. By the arrangement of masses of colour in the scrolls, and by the flowers of every hue in the larger beds, all monotonous effect is got rid of. Every kind of conifer almost has been used, and if sheltered properly, seems to do well. The *picca nobilis* and *P. Nordmannii*, the *pinus insignis*, and the *pinus Austria*, are found to be the fittest conifera for this garden; they are found to thrive very well, though the gardens are said to be more exposed than the grounds around the castle.

Every one who has witnessed Mr. Mitchell Henry's gardening experiments at the Pass of Kylemore, both English visitors and native ones, are agreed that the arrangements are admirable; and the beauty of the flower beds, with the rich emerald green of the grass, invest the whole scene with an inexpressible charm. We trust that the wild gales of the Atlantic will not succeed in injuring the beauty of this oasis in the Wilds of Connemara. We may add that Mr. Henry has been for some time engaged in laying down in this district 300,000 trees a year. According as these grow strong and hardy they will be transplanted on the mountain height facing the Atlantic, in view of protecting the garden in future from its gales. The absence of trees in the district of Connemara and elsewhere in the West of Ireland is, indeed, a grievous want. A look of loneliness and utter solitude is given to places where trees are not to be seen. With enterprise and energy, there is no limit to what can be achieved even in the most unpromising places. We wish there were a few more energetic attempts at improvement like Mr. Henry's. His property, we believe, consists of about 300,000 acres—an immense area, indeed, and affording room for mighty improvements. Between the money laid out upon the grounds and gardens, and in the building of the mansion there cannot be less at present expended than a few hundred thousand pounds.

It would be a pleasure to us to think that some of the native nobility, gentry, and merchants of this country would be moved soon to pay a little more attention to the improvement of their property, or even their residential seats. While strangers are pur-

chasing large properties and settling down to reside in this country, appreciating its beauty and the excellence of the climate, those who ought to know better betake themselves off to the crowded capital of London or other equally crowded capitals on the Continent, for fashion sake alone; and many, many of them, of late years, who have won their wealth in this island, have breathed their last in the narrow streets of London.

We have done. If in tracing the rise and progress of gardening in Ireland from the earliest times, we have afforded any pleasure and information, we will not regret the task. Our sketch after all is but an outline, which, if we had more time upon our hands would have been made more complete.* Our object was not to write upon gardening *per se*, but to treat upon other matters in relation which have tended, and will still tend as time advances, to the general good. In this way it may be found that we have accomplished some little good in our short history of gardening and its accompaniments in Ireland.

DUBLINIENSIS.

THE DUTY OF PRESERVING NATIONAL MONUMENTS.†

(Concluded from page 123.)

TURNING now to our own country, and beginning at the Atlantic seaboard, I find from a valuable communication of Mr. Kinahan in 1869, that the most interesting early buildings on the Connemara Islands are rapidly perishing. Of Ardullaun, he says, "The ruins are all shattered and broken; tradition says they were in good keeping when The Martin held the wilds of Connemara. His successors look more to what can be taken out of the country than what is in it." "One cross only is in a good state of preservation—all the others and any carved stones are more or less injured." Of Innis Boffin he says, "The ancient buildings are all but swept from the face of creation, only a fragment of St. Colman's Abbey remains of all that this island once possessed."

I find in October, 1870, Sir William Wilde appealing to the public for subscriptions to form a fund to prevent further desecration of Roscommon Abbey, and to repair O'Connor's tomb; at the same time another appeal was being made to repair the top of Ardmore Round Tower, then in a *perilous state*. Not many weeks ago the Round Tower of Kilmacduagh, looked on by Irish antiquarians as of the highest interest from Dr. Petrie's references to it in his works, but uncared for and abandoned to its fate, fell prostrate to the ground!

To turn to earlier and ruder monuments than these, we find that everywhere the earthen forts, raths, and megaliths are being swept away rapidly. The great series of cromleacs at Carronmore on Knocknareagh Mountain, in Sligo, associated as they are in such an interesting way with the writings of Beranger in 1791, and Dr. Petrie in 1837, are being destroyed wholesale. O for an Irish Lubbock to step forward and save them! Curiously enough the French authorities do not seem to recognise these objects (at least everywhere) as of sufficient value to protect them, for we now hear that in Brittany and Finisterre, and specially at Carnac, a great many are being destroyed. Nor are matters much better nearer home. For the follow-

ing case I am indebted to a friend who has been in the neighbourhood.

At the beginning of this century there was at Donaghmore, near Dungannon, the remains of an ancient church which had been unroofed in 1641, and afterwards abandoned. It had a very beautiful east window with mullions and tracery of a fine-grained yellow stone. The rector of the parish (who was legally, but in no other sense, the conservator of this interesting relic) was so utterly indifferent to it, that he allowed the stones of the window to be carried off piece-meal to make lap-stones for the cobblers and whet-stones for the farmers' scythes, for which purposes it seems it was well suited, and finally he made a present to the parish priest of the heap of stones that remained to form the foundation of his new chapel.

I mentioned the risk of destruction to which Avebury was exposed and its now undoubted security, and it may be interesting to record that our Giant's Ring with its central cromleac—a work only inferior to Avebury in importance—had even a narrower escape some twenty years ago.

The late Dr. Drew having paid a visit to Ballylesson, was taken to the top of the church tower for the fine prospect which it commands on every side. Being pointed out the Giant's Ring at Drumbo, to his amazement and horror he beheld men busily digging into the mound and removing the materials to another place. He hurried into town and wrote a strongly worded letter to the *Ulster Times*, a copy of which was sent to Lord Dungannon, the owner of the soil. His lordship instantly directed that the circle should be inclosed with a proper stone wall, and no further interference with it permitted; and this came not a day too soon, for it then transpired that the levelling of the earthen mound or Ring was only a portion of the *improvement* which the tenant had contemplated on the premises. He had entered into a bargain with a local road contractor, to bore, and blast with gunpowder, and then break into road metalling the huge trap boulders composing the cromleac, commonly called the Druid's Altar. The poor man, utterly ignorant of the value of what was around him, only thought of the trouble he had from the town's folk making a path through his clover field to see the "wheen muckle stanes." Suppose he had completed his ideas of *improvement* without attention being drawn to them, but had been afterwards notified to leave his farm and had then made a claim against his landlord under the recent Land Act. Fancy a claim for his outlay in removing the Giant's Ring!

But sad as was the want of taste and feeling for antiquity at Drumbo, a more melancholy and deplorable case of this kind happened not far from where we now are, and is within the knowledge of some old inhabitants of the town. I refer to the destruction of the remains of the famous Con O'Neill's castle at Castlereagh. The owner (I believe the grandfather of the present Marquis of Downshire), hearing that the old castle was much dilapidated, wrote to his agent to enclose the castle field with a wall. His orders were obeyed, but imagine his vexation and anger (for he had a strong desire to protect the old ruin) when he found, on visiting the spot, that every stone of the old pile had been removed and used in erecting the wall, for which piece of economy his agent expected much commendation. Such, then, being some of the risks to which our national monuments have been, and now are daily exposed, is it not wonderful to think of the apathy and indifference with which even well-educated people are in the habit of looking on, whilst the work of the elements, aided oftentimes by man's ignorance and selfishness, is hurrying them to utter destruction?

It would, however, be unjust not to admit that there has come about a greatly improved state of feeling on these matters within the last thirty years, and specially is this true of the more cultured classes in England, although it is not confined to them. No doubt this is partly owing to the general spread of

education and the greater facility for travel, but the chief cause is traceable to the revival of a taste for truthful art and architecture which took place about the time mentioned, aided by the writings of Pugin, Scott, and Ruskin, and more lately by the numerous societies of archæologists in which the best men among the clergy and laity take an active part.

Whilst much is thus being effected both in working out the early history of the country and in saving many historic records which might otherwise have been lost, on the other hand it cannot be denied that the indiscreet zeal of the clergy has in too many instances led to the restoration of churches where, on the process being ended, but little can be recalled of the features that gave such value to the old, and which a wise repairer would have retained.

In Scotland this revival has been only weak and partial, but lately there are symptoms of its setting in with somewhat increased force. The Dundee authorities have lately voted a very large sum of money to repair their noblest monument,—the steeple of St. Peter's,—the finest example of its class in the kingdom; and it is now said that St. Giles' Cathedral in Edinburgh is to be at length cleared out and restored internally to something like its original beauty. It is to be also hoped that the fine old church of St. John, Perth, will not be overlooked, but have its internal rubbish cleared out bodily.

In Ireland, considering that only one association has been doing any active service during the last twelve years or so, it is much to their credit the large amount of valuable work they have effected with such limited means. I refer to the late Kilkenny—but now the Royal Historical and Archæological Association of Ireland—and may mention the following buildings of great interest, which, chiefly through the exertions of the zealous secretary (Mr. Graves), aided by members of the association, have been, by judicious repairs, placed in a state of security, viz.:—The Abbey Church of St. Francis, in the town of Kilkenny; the Round Tower of Clonmacnoise; the churches, crosses, and Round Tower at Monasterboice; and it is also proposed to effect similar repairs, as far as can now be done, to the remains of the Seven Churches at Glendalough, County Wicklow.

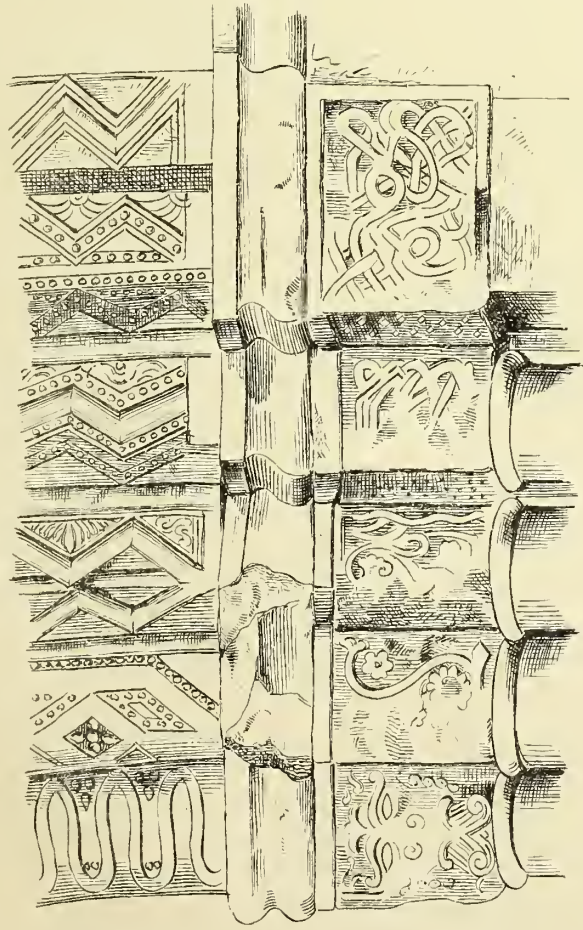
But, making due allowance for improved public feeling, and for all that these private associations can overtake, it is painfully evident that there is at present no adequate means of dealing with the whole question of national monuments and their due preservation, such as the urgency of the case demands. A strong feeling has, in consequence, spread among those who are interested in these matters that the Government should intervene as it does in France, and under certain circumstances give State protection to these remains.

I think Mr. Pope Hennessy deserves to be remembered as the first who called the attention of Parliament to this subject, about 1864 or 5, and although nothing came of it then, it probably led to the views that were expressed in March, 1869, by Mr. Layard, when Chief Commissioner of Works, as he promised to make a movement to obtain State protection for ancient monuments in England.

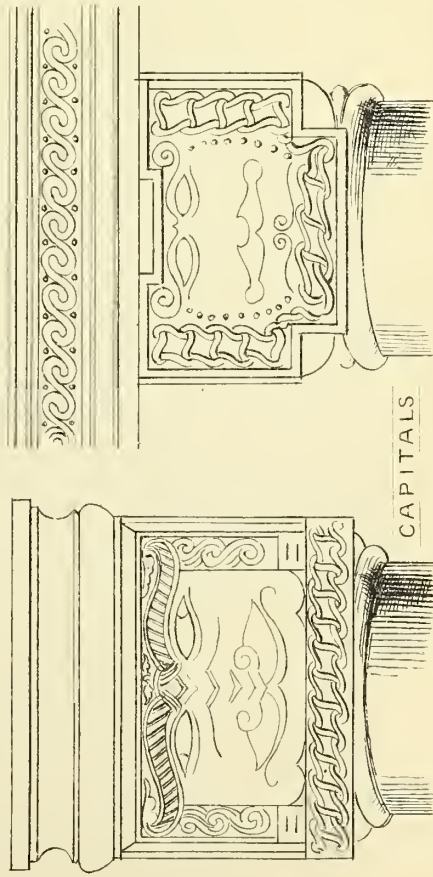
The Historical and Archæological Association of Ireland being naturally anxious that Irish national monuments should be brought within the influence of any measure such as Mr. Layard contemplated, brought considerable influence to bear upon him, and he promised to do what he could for Ireland also. Nothing further seems, however, to have been done except requesting the Society of Antiquaries in London and the Royal Irish Academy, to have a list prepared of all the "Historical Monuments" of the two countries. The former society fell into a ludicrous mistake, for they thought all that was wanted was a list of the royal tombs! The Archæological Institute have, however, taken up this part of the work, but for so far there

* A very useful chapter or chapters might be profitably devoted to the literature of gardening, and to giving an account of the labours and works of many able and practical writers, particularly within the present century. England and Scotland can boast of writers whose works have become standard authorities on gardening subjects, but the literature of gardening in this country is very sparse indeed, even of late years. Journals have been published in London for upwards of thirty years, and at present there are several issued weekly devoted to gardening as well as farming subjects. Ireland may boast, indeed, that for many years there has been published in her capital a *Farmers' Gazette*, which has rendered very useful and practical service. When a healthy and general taste and love of gardening permeates all classes of our people, and horticultural shows become more than ones in name, we may expect to see the literature of gardening spreading, and elevating as it spreads. Why should not this country also have her gardeners' chronicles, horticultural gazettes, and other serials of a kindred nature?

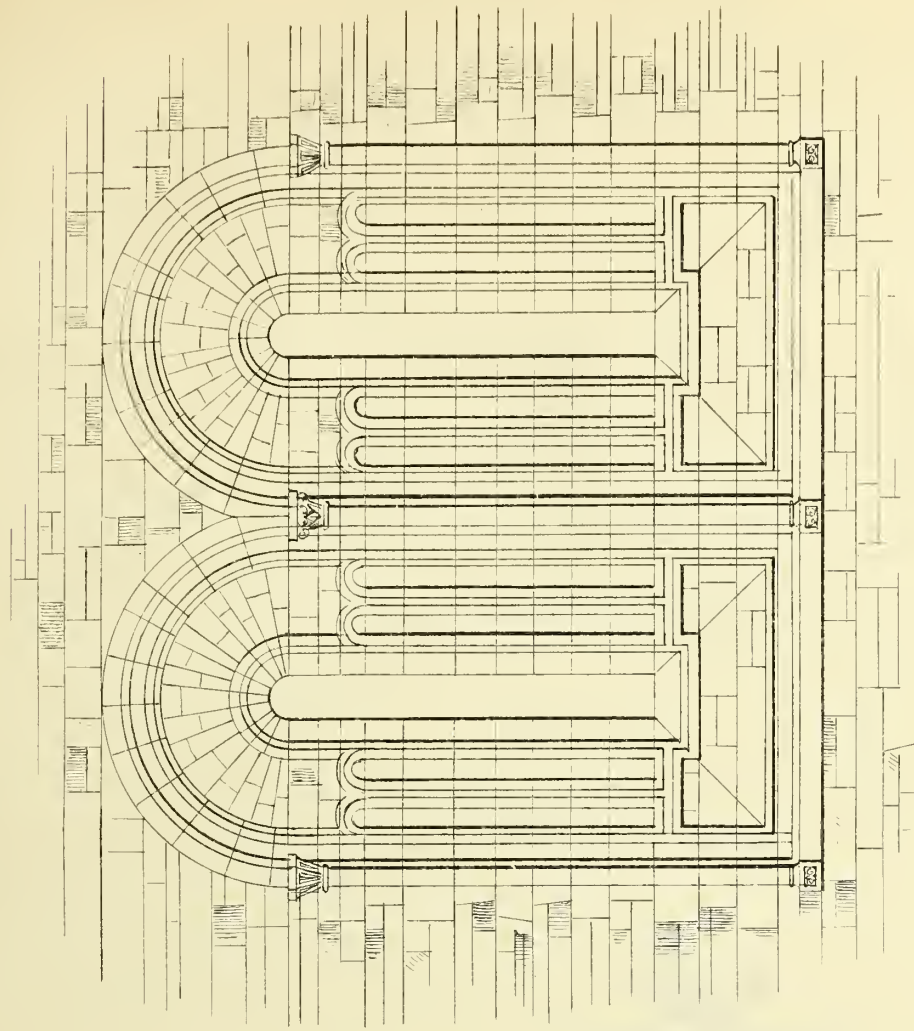
† By Mr. Robert Young, C.E. Read at meeting of the Natural History and Philosophical Society, Belfast.



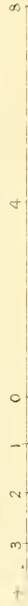
PORTION OF PIER AND CHANCEL ARCH
— TUAM CATHEDRAL —



CAPITALS



EAST WINDOW CLONFERT



THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

has been no progress reported from either country.

We now come to the first tangible recognition of the duty of the State in this matter, and it is contained in the 25th section of the Irish Church Act of 26th July, 1869. It provides "that where any church or ecclesiastical building or structure appears to the Commissioners to be ruinous, or, if a church, to be wholly disused as a place of public worship, and not suitable for restoration as a place of public worship, and yet to be deserving to be retained as a national monument by reason of its architectural character or antiquity, the Commissioners shall, by order, vest such church, building, or structure in the Secretary of the Commissioners of Public Works in Ireland, to be preserved as a National Monument."

The Act is manifestly incomplete in not providing for a properly-qualified inspector being appointed who would examine and report upon the buildings that should be considered National Monuments. Perhaps it is as well that nothing has yet been done under this 25th sec. of Irish Church Act, as Sir John Lubbock has given notice that he will introduce a bill this session for the Preservation of National Monuments both in Great Britain and Ireland, and I trust this 25th section may be repealed, and all the buildings worthy of being cared for placed under the one control. From a draft of the bill which has been kindly sent me by its author, I find a very simple machinery is proposed to be set up, resembling pretty closely the method pursued in France. Commissioners are to be appointed, who are to be vested with all the powers necessary to carry out the objects of the act. Inspectors to be appointed by them, who will be charged with the duty of looking after monuments worthy of coming under the operation of the commission. Provision is made for compensating all owners whose private rights may be interfered with.

As I have referred to the French system of State protection, I may mention that there are throughout that country a large number of societies of antiquarians who do a great deal of work in their own neighbourhoods, and direct the attention of the Chief Inspector (M. Viollet le Duc) to anything that he may have overlooked, and worthy of being placed on the list of "Monuments Historique." Before the late war about £40,000 was being expended by the French Government under this head, being mainly in the shape of church restoration under the direction of V. le Duc himself—not a very wise arrangement. In Germany much care is taken of the very interesting remains both of churches and castles, but all this is done by private associations, and the State does not profess to interfere at all. That there are occasions when even there the State should intervene is clear from a statement made by Mr. John Parker, of Oxford, about a year ago. He was at the small town of Zoest, and found that the authorities had determined to pull down a church which had great historic interest and value. He remonstrated with them, but they said it was of no use, and must come down. He then wrote to the Crown Princess of Prussia, and to his delight, in a short time, he got a courteous reply that she had spoken to the King, and he had given orders that it must be saved.

No doubt this was so far satisfactory, but there is not everywhere, and always a Parker on the alert to counteract the effects of ignorance or caprice. How infinitely more wise and constitutional to proceed, as is done in France, to determine by the voice of the educated part of the community, aided by such experts as Viollet le Duc, what are the monuments worthy of State regard? When this is done and the private rights (if such be interfered with) compensated, these are ever after guarded, and preserved at the public expense.

It is to be hoped that Sir John Lubbock's Bill will pass this session, although opposition is expected from those who view any in-

terference with private rights as something sacrilegious; however, modern legislation has furnished too many instances of this being done for the public good to make us doubt the final result. I hope, therefore, that a numerous signed petition in its favour will go forward from this centre of education and intelligence to convince Parliament that the sentiment of the people here demands it.

As regards funds for carrying out the Act in Ireland, there could be nothing so well entitled to, and eligible in every way to receive a portion of the residue of the Church property as this, many of the Irish monuments being of an ecclesiastical character, and, along with this appropriation, it would be most desirable that at least a selection from the large mass of the Irish Ordnance Survey documents—collected with such care by Petrie, O'Donovan, and their assistants, and useless in their present state—should be published by the Government, a further portion of the residue being granted for that purpose also. I have no hesitation in saying that Irishmen of every creed and class would agree in considering both these objects more worthy of being classed as residuary legatees under the Irish Church Act than our county lunatic asylums.

CIVIC LYRICS.—No. XIII.

"THE COMMITTEE OF THE WHOLE HOUSE."

These Councilmen, these Councilmen, in Dublin City Hall,
Whose names in placards look so grand upon each old dead wall;

They've gone to school, we may suppose, or else the scholars met

Upon the way, for it is clear they know their alphabet.

There's Darby Grab, who throws a light upon each subject dark;
He's voted as a clever shot, and one who hits his mark.

And there is Simon Shuttlecock—Sir Simon, beg your leave,—
Who talks like injured innocence, while he laughs in his sleeve.

These Councilmen, these Councilmen, presumptive and elect
Town Councillors and Aldermen, sedate and circumspect,
Who never look for place or pay, but only vote and act
To show how moneys may be spent, with spirit and with tact.

Men like these are seldom found, with high and lofty aims—
Gems of purest water, like the Liffey and the Thames.

Let them fight for common wants, and pay themselves with loot.

As all victorious soldiers do, and hangers-on to boot.

These Councilmen, these Councilmen, Sir Bernard Burke so vexed,

They'll not forget him for awhile, he drove them so perplexed.

Oh, was it not a burning shame those local guns were not
Allowed to fire o'er Mayo's grave a farewell funeral shot.

Not a card for anyone, except the poor Lord Mayor,
And be alone of all the rest prayed one forgiving prayer.

Some few went on their own hook, to show the high respect
They entertained of their own selves, and cold Viceroy neglect.

These Councilmen, these Councilmen, whose poor relations
and

So very useful when they want to raise a little wind.

Some have aped to be lord mayors, like those who have got in;
And, strange to say, when they got there were minus "tick and tin."

What boots it—snore the public purse can still afford a squeeze,
To help the lame dog o'er the stile that's weak upon the knees.

And Mansion House festivities, gone lately in arrears,
We know will need galvanic shocks this Exhibition year.

These Councilmen, these Councilmen, what would poor
Dublin do

If some earthquake would swamp the Hall, and swallow up
the crew,

The Irish keen would then be heard, from Madland to the
Coombe,

For all that splendid talent lost, that erst found elbow room.

Forbid it, bappy citizens—thrice happy and thrice blest
Are you still, while you can boast this nightmare on your breast.

If you lost your "laughing-stock," what would you do for
ghouls?

Dublin could not live unless she's bled by knaves or fools.

CIVIS.

THE SANITARY WORKS BILL (IRELAND).

THIS bill is not in reality what its name implies, and it no more deserves the name of a sanitary measure than it does to be called a "Repeal of the Union Bill." Framed with a sanitary verbiage, and disguised by a false and mischievous misuse of terms, it is worthy at least of one of its most active pro-

moters. The best description we can apply to it is to describe in a pithy sentence well known in Ireland—"A mockery, a delusion, and a snare." It is not likely, however, to pass this session, if it passes at all; and, the best thing the Government could do, would be to relegate it back at once to the arms of its putative parents, to keep company with the other illegitimate offspring of a similar kind, that died of bad nursing and inanition.

THE IRISH EXHIBITORS' GRIEVANCE.

SOME complaints have reached us as we were about going to press, similar to those made by Messrs. Brown and O'Neill, coach builders. It is warmly asserted that many of the Irish exhibitors are badly treated in regard to the space allotted to them; and that several of the English exhibitors (in various departments) have the most prominent places allotted to them. This is a serious charge, if true, and, if true, the condition of things that produced it should not be allowed to exist for a day. We claim for our Irish exhibitors no favoritism, nor would we wink at any unfair dealing towards either foreign or home competitors.

Mr. Lee, the general manager, has replied to Messrs. Brown and O'Neill's statements; but his letter is not quite as satisfactory as we would wish it to be for the interests of all concerned. We think the last sentence of his reply might have been left out, which says:—"As to how far Messrs. Brown and O'Neill can hold their own, the public will be the better judges when the exhibition opens." Why this reminder? Surely Mr. Lee does not wish to suggest the inferiority of these gentlemen's exhibits beforehand, or to leave himself open to be charged with usurping the function of the judges or the verdict of the public? If a tangible grievance exists, let it be remedied in time; and, if we are to have a *bona fide* Irish exhibition, let there be no just cause of complaint allowed to exist on the part of our native exhibitors.

PUBLIC PARKS AND PUBLIC LIBRARIES.

THESE are two requisite essentials for the well-being of our people, but very small advance is yet made in this city or throughout the island to provide them. In England, Scotland, or the Continent and throughout the United States, these wants are supplied to a great extent, and additions are making every day. We have, long since, advocated the opening of the public squares of Dublin for the free use of our citizens, poor and rich, and it is a scandal to our acknowledged civilization that this improvement is still opposed by a few selfish individuals. The Press of this city, forgetful of their mission, are culpably at fault in not assisting in the movement, which would tend so much to the health of the city, and the innocent recreation of thousands. We want also more public libraries, for with the exception of one or two institutions connected with learned bodies, we have no real free libraries for the admission of the working classes of our people.

If a proper movement was made in this city, and the Irish Executive enlisted, we have little doubt but the Government would, in time, assist in the formation and support of free libraries for the benefit of the population. When local authorities are so remiss themselves in even making an attempt to enforce or make arrangements for the opening of our public squares, Government may well plead an excuse. On another occasion we will have something further to say on public parks and free libraries.

THE TECHNICAL EDUCATION OF THE WORKMAN.

The importance of technical education to the workman cannot be over-estimated. This is not the first nor the twentieth time we have directed attention to the subject through these and other channels. The British Islands are yet far behind some American and Continental States in these matters; but there are some good signs showing at present in London which may be taken as an augur of the action that will soon begin. We can never compete with foreign artists and manufacturers, until our craftsmen and art workmen are thoroughly educated in the principles of their trades. From an article which appears in the *Mining Magazine and Review*, communicated by Herr Moritz, one of the officials of the Federal Polytechnic School at Zurich, we glean some very important and interesting particulars which we consider most opportune. From its foundation to the present time, this continental school has exceeded in usefulness the most sanguine hopes formed at its opening. The students have increased year by year in number and merit, and it has already turned out several distinguished pupils. We are told also that the chair in the college is thought so highly of, that many distinguished professors are happy at accepting any offer. The students are composed of different nationalities in Europe; among the number are Russians, Poles, Hungarians, Americans and Asiatics. The Swiss pupils are exceeded in numbers by those of other nations.

Candidates were so numerous in 1871, that they all could not be accommodated, and this want is said to have suggested the idea of a Federal University.

THE ORGANIZATION.

The Polytechnic School is divided into seven sections, to which is added a preparatory school:

- 1.—School of Architecture.
2. " Civil Engineering.
3. " Mechanics.
4. " Chemistry.
5. " Forestry and Agriculture.
- 6.—Normal School of Natural and Mathematical Sciences.
- 7.—School of Literature and Political Science.

1. The School of Architecture.—The pupils of this first section propose to become either builders of ordinary dwellings, or architects in the highest sense of the word. Every intelligent and hard-working pupil is enabled, by availing himself of the resources of the school, to attain the former end. For the production of an architect there is needed the possession of the artistic feeling and inventive power of genius. Zurich does not possess many buildings of high architectural merit, and the school can only be expected to produce good builders, and pupils trained up to a point at which they can devote themselves exclusively to the study of art. The training for this end must be technical and æsthetic. The technical being almost entirely comprised in the first year's curriculum, at the head of the programme is placed a theoretical course on masonry, carpentry, and the materials for building, accompanied by practical exercises of architectural drawing—elevations and plans. The pupils further study separately the most complex portions of a building, the different sorts of foundations, roofs, stairs, etc., and the various methods of lighting and heating, applying the principles of statics and physics to the calculation of their works.

The study of models in this year is especially adapted to fit the students to prepare schemes based on these calculations. It is obvious that the practical exercises follow step by step the oral lectures of the professor, the same instructor being charged with the double duty. A course on building materials is included in the first year's studies, of which descriptive geometry also forms an auxiliary branch of great importance, as applied to the theory of shadow and the sections of stones and timber. Modelling in clay and plaster is conducted in spacious studios, and excursions to inspect buildings, especially those in course of construction, under the guidance of a professor, furnish an instructive variety both in this and in the higher courses.

The artistic element of training is supplied by lectures on ornamentation and the various styles of architecture, admirably calculated to develop the sense of the beautiful and the power of designing.

The teaching in the second year deals with the same subjects in an advanced form, buildings being treated as complete, while the elaboration and perfecting of schemes and estimates form an important part of the course. Lectures on bridges, roads, railways, hydraulic works and machinery, are also given, but are confined to the theory, the practical part of these branches being left to the engineers. Architectural art assumes a more prominent place, a course of the theory and practice of perspective being added to the study of design.

The technical teaching of the third year is still more advanced, the pupils being obliged to prepare, unassisted, elaborate projects and complicated estimates of works. The principal branches of instruction include geology, style, mechanics, ornament, and decorative art, and the history of the Fine Arts at various epochs. The pupils have access to a complete collection of architectural mouldings, figures, and ornaments in plants, as well as a museum of all materials used in building, and a library of architectural works; the various facilities thus afforded enabling them to qualify themselves for the construction of buildings of importance.

We now pass to the School of Civil Engineering, in which the students of the first year have the same course as those in the first section. The elements of the construction of roads, bridges, railways, and hydraulic works, are the same as those taught to pupils in the preceding class; but the civil engineers of the future learn besides mechanical drawing and the drafting of plans. The second year students in civil engineering are taught the theory of differential equations, technical mechanics, including dynamics and pneumatics, the geometry of position, physics, geology, the theory of shadows and perspective.

Geodesy is represented by a special course: that of topography, which includes practice in surveying. The pupils at the time of their entrance are supposed to have mastered the most simple methods of mensuration, as well as something about surveying instruments, and to have a certain amount of practice in these operations. The instruction in the school includes, except these first elements, all the features of topography, practical exercises being given in the broken country round Zurich. In the third year, theory and practice continually go hand in hand; and in the fourth year, which includes only the six months of winter, the pupils are engaged in the actual construction of iron bridges, and railways, in the art of preparing and finishing maps, in hydraulic works, and in all that practical engineers are called upon to deal with. This division of the school possesses a complete assortment of instruments and models of various kinds of bridges.

In the Mechanical School the course for the first year is purely theoretical, and is followed by the pupils in company with those of the School of Civil Engineering, with the addition of the classes of analytical geometry and metallurgy, and the drawings of machinery from full-sized models. The programme of the second year differs little from the corresponding courses of the first two divisions. Branches of the course comprise the theory of turbines, water-wheels, and mechanical technology. The third year's course is almost entirely practical. Lectures are given on the theory of steam-engines, the rules for calculating dimensions, and the mechanical theory of heat. Calculations for the construction of engines of various kinds are made by the pupils themselves during this year, with the advice merely of the professor. This division possesses a collection of full-sized models and drawings of the various parts of machines, such as is not to be found in any other school of the kind.

The School of Practical Chemistry embraces a course of at least two years' duration, a period, of necessity, too brief for any complete study. It is impossible to acquire the necessary manual skill in that time—to become a good *technicien*—still less to master the principles of a science developing so rapidly as chemistry now is. In future, it may be hoped that six half-yearly terms will be devoted to this branch. Under the present rule, the pupil, having been instructed previous to his admission in first principles, is occupied during his year of entrance in simple analyses. Six hours a week are given to a detailed course of organic and inorganic chemistry. Branches of the course naturally divide themselves into physical chemistry, botany, mineralogy, and zoology. Some hours are also given each week to lectures on and examinations of the appliances and utensils most common in laboratories. The second year is almost entirely devoted to chemical technology, dyeing, printing, and manufacture of chemical products, all this joined to the new methods of treatment, and the analysis of the laboratory—two conditions necessary to turn out the pupils at the end of the time as fairly good *techniciens*. According to our ideas it is only natural that the course of pharmacy is placed in the

division of chemistry. The only difference that exists between the two sections is that the students of pharmacy in the second year attend special lectures on pharmaceutical chemistry and botany and pharmacognosy, and are, above all, occupied in qualitative, quantitative, and toxicological analyses. The laboratories have been brought to a very high degree of perfection. Herr Stadelé, the distinguished chemist of the school, has had them fitted upon the models of the best laboratories of Germany; but the space that the building affords gives inadequate accommodation to the ever-increasing needs of this section.

The School of Forestry comprises a course of two years, the first of which is occupied in theory and in excursions, and the second in practical silviculture, topography, surveying, valuation of timber, climatology, etc. The pupils are obliged to attend a course of instruction in road-making, and the construction of bridges and hydraulic works, as an integral part of the science of silviculture. Lectures are also delivered on points of law and administrative legislation, which puts the pupils *au courant* respecting the rights in and over forest lands. To this division has been joined the School of Agriculture, which was only founded in 1871, but which promises to be very successful, thanks to the efforts of the professors at the head of this section; the instruction in which is almost identical with that of forestry, with additional study of rural economy, drainage, agricultural chemistry, zoology, and the care of the domestic animals.

The pupils of the Normal School (Sixth Division) follow special courses, according to their requirements, of instruction in mathematics, or natural and physical sciences. The first attend during two years the mathematical teaching in the division of practical mechanics, while the third year is given up to the higher branches of mathematics, physics, and astronomy. The second follow specially the courses of physical science in the division of industrial or practical chemistry. In this section no part of the programme is obligatory, the pupil, under the direction of the principal, choosing and following his own course.

The seventh division is intended to increase and complete the knowledge of all the pupils of the other sections, especially from a scientific and literary point of view. The literature of Germany, France, Italy and England receives especial attention. General history and courses of lectures on civil, commercial, public, and administrative law, and on the Fine Arts, are the chief branches of this section.

There is an arrangement in existence between the University of Zurich and the Polytechnic, by which the students of the former have the advantage of the courses of the latter, and *vice versa*. In this way the cycle of study is rendered more complete than it could be in either establishment separately.

A preparatory school has been created for pupils whose education has not been sufficient to enable them to enter directly any one of the divisions. They attend it for one year. In order to be qualified for entrance, candidates must be able to speak and write with facility and correctness in one of the three national languages—French, German, and Italian; must know sufficient French and German to be able to follow with advantage the teaching in the preparatory school, in which both languages are employed; must also know arithmetic, the elements of algebra, and have some idea of planometry. For admission to the higher school, candidates should address before a fixed date (commonly the middle of October), a demand in writing, accompanied by certificates of good conduct, previous studies, and birth, and must pass an examination varied according to the division which they propose to follow. Scholars from the various cantonal schools of Switzerland are admitted without examination if they possess full and complete certificates from their previous teachers.

The special conditions of admission to the schools of Architecture and Civil Engineering and Mechanics are as follows:—An examination must be passed in arithmetic and algebra; plane and solid geometry and trigonometry; descriptive, practical, and analytical geometry; in physics, in the general properties of bodies, in acoustics, optics, heat, magnetism, and electricity; in inorganic chemistry; and some drawings made by the candidate must be handed in. The tests of admission to the other schools are similar, but slightly varied. If a candidate proposes to take up two sections at once, he must pass the preliminary examination for both. At the end of the academical course diplomas are given to those who have attended regularly, and have passed sufficiently well in a strict examination of their division. Besides this, two prizes are given each year for essays on special subjects. The successful pupils have a right to a sum not exceeding 500 francs, which helps to cover the fees of the school.

As to discipline, the pupils are subject to the municipal laws and prescriptions of Zurich. Scholastic offences, such as neglect of studies, moral delinquencies and duels, are adjudicated by the director. Duels are especially prohibited, this involving, not merely rustication but even banishment from the Confederation. Professor Bolley has set on foot monthly examinations, which at once help the teachers to ascertain the progress of the pupils, and assist the latter to learn their own position with reference to the rest of their class, so that they may devote special attention to points on which they may be found weak.

The staff consists of the same classifications as in the German universities: ordinary professors, deputy professors, assistants and *professeurs agrégés* (private tutors). From the professors of each division is chosen a principal (*vorstand*, or provost), who exercises over the pupils of his section a more immediate influence than the director of the institution, and is even more than the latter the judge of their progress. The private tutors do not correspond to the *professeurs agrégés* in France. They possess not a mere title, but a position which, though far from lucrative, is often a step to the higher professorships. The competition among them as well as their devotion to science, keeps the teaching of the school concurrent with the latest discoveries, and their instructions serve to fill up any deficiencies in the lectures of the general courses. The professors hold frequent general and special conferences at which promotions, diplomas, subjects for prize essays, and cases of discipline, are discussed and dealt with. The director of the school is chosen from among the professors; and the supreme authority of the Polytechnicum is the Federal Council, represented by the Board of the school, which is chosen from eminent men of Switzerland.

The collections and museums of the city of Zurich being open to all students, it may be well to speak at once of those of the Polytechnic and of the University, the two establishments having them in common. They occupy one entire building. On the ground floor is the archaeological collection; on the first floor that of mineralogy, geology, and vegetable palæontology, in which during the past month has been placed a painting remarkable as much for its dimensions as for its singularity. M. Holzthal, the artist, under the direction of MM. De Escher Dela Linth and De Heer, has here represented the neighbourhood of Oeningen at the Miocene period with a fidelity of detail and remarkable artistic power. On the second floor are the zoological and palæontological museums, as well as a lacustrine collection, classified by Professor Ruy-meyer. Smaller collections, arranged for teaching purposes, are to be found in the lecture-rooms of the professors. In the building devoted to chemistry is a technological collection, chiefly remarkable for a series of Japanese products, the gift of the Japanese embassy. A considerable library, founded for the use of the students, and a reading-room conclude the series of resources afforded by the Polytechnicum. A little way off is the Federal Observatory, which issues a monthly report, and close at hand, near the dissecting-room, are the anatomical collections. At the other end of the town lies the Botanical Gardens, formed by Herr Gessner, in which the Alpine plants have been acclimatized with great success, as well as orchids and the medicinal plants of the tropics. The Botanical Museum contains a very complete herbarium.

It is unnecessary, in conclusion, to give a complete list of the past and present professors, but among them occur the well-known names of President Kappeler; Drs. Wislicenus, Professor of Chemistry; Kinkel, Professor of Architecture; Wolff, Director of the Observatory; Kopp, Director of the Chemical Laboratory; Escher de la Linth; Frey and Clausius. The teaching power is unquestionable; more than one of the professors has a special reputation; and some of the private tutors, even, have made their mark—as M. Heim, who has become known in England by his work on the Glaciers. Still, enough has been said to convey to our readers an idea of the bases of the excellent organization which has helped to make successful, in a singularly short time, the Federal Polytechnic School of Zurich.

THE PROFESSION, PRACTICE, AND PROSPECTS OF ENGINEERING IN IRELAND.*

(Concluded from page 131.)

We give here the conclusion of Mr. Bindon Stoney's excellent paper, as far as it bears upon this country. His concluding remarks

* Inaugural Address, delivered at the Meeting of the Institution of Civil Engineers of Ireland. By the President, Bindon B. Stoney, M.A., M.I.C.E.

upon the subject of sanitary engineering are entitled to careful thought by legislators, as well as engineers. If the rivers of Great Britain and Ireland are to be saved from pollution, gigantic systems of drainage and for the utilization of sewage and manufacturing refuse will have to be adopted. The subject is altogether so vast, and embraces so many deep problems bearing upon the future welfare of mankind, that it cannot be lightly dealt with. Mr. Stansfield's new Health Bill cannot pass in its present shape. It ignores many serious considerations, and runs amuck with others in a fashion not creditable to modern legislation:—

In mechanical engineering three things have occurred during the past year which are of vital interest to a great manufacturing and commercial country like England. First, the diminution of the hours of labour among the working classes. Secondly, the enormous extension of the iron manufacture and the great demand for hematite ores for Bessemer steel. Thirdly, the increased cost of coal and the growing feeling that the supply may possibly not equal the future demand, and that there will result a future increase in prices that may render some branches of manufacture unprofitable.

The improvement in the material prosperity of the working classes, especially those exercising skilled labour, has been very marked during the last quarter of a century; and the shortening of the hours of labour, which has been lately so successfully established, is another step in the same direction. Part of this prosperity may, no doubt, be attributed to the influence of large gold discoveries on the price of labour; but still, comparing their relative position with that of other classes of society, the balance on the whole seems in favour of the operative. Now that education is within the grasp of all, and that fresh facilities are constantly given for a lad of talent to work himself up by his abilities from one grade to a higher one in the scale of learning, we find that competition in the professions and the higher branches of business has greatly increased, while incomes derivable from professional toil have not at all augmented in the same ratio as those derived from manual skill. On the other hand, we find the cadets of noble houses contending in the same arena with members of the learned professions and men of business; so that on the whole we may conclude that what are sometimes called the upper middle classes in society are those whose relative position has least altered for the better within the last quarter of a century.

The stagnation of trade which succeeded the year 1866, having passed away simultaneously with the expiration of the Bessemer patents and the termination of the Franco-German war, has given an immense stimulus to the manufacture of iron. To the engineer everything connected with iron is replete with interest, but we fear our long cherished hopes that steel plates may be manufactured in large quantities of a reliable and uniform character has not yet been realised. In shipbuilding steel is still regarded with distrust, and must be so long as its tendency to fly without warning has not been overcome by the manufacturer's skill. Iron, therefore, still reigns in the construction of ships, and in no other branch of trade is greater activity at present displayed. Long screw steamers, high-pressure steam and surface condensers are now the fashion, and a new timber ship is quite as rare as an iron one was twenty-five years since. Among other causes the opening of the Suez Canal has contributed to increase the length of screw steamers, and we find vessels from 350 ft. to 450 ft. long becoming very numerous, and one of our most experienced shipbuilders has informed me that he anticipates that vessels of 500 ft. in length will be required before long for ocean routes. Thus we find the old-fashioned docks in some of our greatest ports daily becoming inadequate for the increased size of

ships—an instructive lesson to modern engineers not to provide merely for the immediate wants of the present moment, but look into the future and design their works so that at all events they may be capable of extension without destroying or rendering useless work already done.

The increased cost of coal is one of the most vital interest to England, and some persons think we should not be so liberal in supplying foreigners with a commodity of which we have a certain kind of monopoly as well as a limited supply. They propose placing an export duty on coal, similar to that which the Peruvians have placed on guano, and from which the latter derive a very considerable revenue. Without going into this question, we can clearly see that the cost of fuel in England must greatly increase as the more easily won coal becomes exhausted and we have to work deeper and, perhaps, thinner seams. 4,000 ft. appears to be the limit of depth at which those who have investigated the matter consider we may mine for coal. Raising the mineral from so great a depth must, however, be attended with a vast increase in cost. For example, a wire rope of this length and of uniform size would not safely carry its own weight in regular work, much less support a heavy box of coals in addition. The total lift, therefore, must be subdivided into perhaps three or more separate lifts, and this alone will inevitably add considerably to the cost of fuel.

The most memorable event in the progress of foreign engineering during the past year is the completion of the Mont Cenis tunnel, which is mainly due to the enterprise and intelligence of the Italian Government and their engineers. The construction of a tunnel beneath so great a depth of superincumbent rocks opens out some interesting questions to the geologist as well as to the practical engineer. The greatest height of the mass of Alps over the tunnel is stated to be 5,307 ft., and at the rate of 13 cubic feet to the ton, this is a equivalent to a pressure of a little over 400 tons per square foot at the level of the tunnel, which is greater than the crushing strength of many rocks and closely approaches that of the hardest granites. At first sight it might be supposed that this enormous pressure would cause the tunnel to collapse, or, at all events, that the lining rock would be very apt to splinter, just as occurs with samples in a proving machine, long before the absolute limit of crushing is reached. There can be no doubt that before the tunnel was pierced the rock was subject to a very enormous pressure, but it seems highly probable that as soon as a hole was formed through the rock a slight motion took place, the rock expanding into the tunnel where the pressure was relieved, so that there is a tube or annular portion of rock around the tunnel, the interior of the tube being comparatively free from strain, which gradually increases the further it recedes from the tunnel, until at some short distance the full pressure of 400 tons per square foot is attained. Tresca's experiments on the flow of solids leads us to conclude that even rock may slowly close in under prolonged excessive pressure, provided the latter be sufficiently great. Possibly rock will not flow; it may rather be first crushed to fragments and then made again to cohere by pressure within a limited space, just as certain kinds of compressed bricks are formed by forcing powdered clay into moulds. This question may possibly meet a further solution in a large practical way should tunnels be formed beneath much higher Alps than Mont Cenis, and nearer home the question attains a certain amount of interest in connexion with our future deep mining for coal; for where clay or soft shaly matter occurs in very deep mines, there can be no doubt that serious difficulties may arise from the "creeping" of the floor or roof, which is at present sometimes very sensible in comparatively shallow mines. To the geologist such speculations are replete with interest. They lead to the inference that large voids cannot exist far beneath the

earth's surface. It is conceivable, however, that the contraction of solid or fluid matter may leave spaces of considerable area filled with gases or vapours in a high state of tension, and that this tension slowly diminishing may cause the equilibrium between the gas pressing upwards and the superincumbent earth pressing down to be destroyed, and thus large areas of the earth's surface might cave in suddenly. It would be a necessary condition of this phenomenon that the gas or vapour filled space should not be in connexion with a lofty volcano, for the pressure due to the liquid head of lava in volcanoes such as those of the Andes cannot be much less at the level of the sea than from a 1,000 to 2,000 tons per square foot; and if lava be as dense or denser than the average mineral matter of the globe—and we are told that stones float on lava—this excess of pressure will extend downwards with an eruptive force throughout the whole area of the molten lake or internal reservoir from whence the lava issues forth. From this consideration we might deduce a minimum thickness of the earth's crust, supposing that it were a spherical shell with a fluid centre, for the outward pressure due to the liquid head of lava above the earth's surface would be balanced by the tensile strength of spherical shell; and if we knew the density of lava as compared with that of the earth's crust, and the tensile strength of the latter, we could readily find the thickness of the shell requisite to balance the bursting effort due to the head of molten matter. We may extend our speculations still further and conceive that the sudden upheaval of large portions of the earth's surface, such as that which occurred in Chili in 1822, and which raised the ground over an area estimated at 100,000 square miles, and to a height of 3ft. on an average, was due to the liquid head of lava in the adjacent volcanoes overcoming the cohesion and weight of the earth's crust, either by forcing itself in a horizontal direction through the solid ground beneath the raised area, or, if a large lake of molten matter exists beneath those regions in connexion with the volcanoes, by the liquid pressure over the area of this lake overcoming the superincumbent weight and cohesion of the ground around its edges. In either case the movement would cease as soon as the volcanoes were relieved by the discharge beneath of their molten contents; and as the mass thus added to the continent has been calculated to have contained fifty-seven cubic miles in bulk, which would be sufficient to form a conical mountain two miles high (or about as high as Etna), with a circumference at the base of nearly thirty-three miles, it must have taken the fluid contents of several volcanoes in the Andes to effect the upheaval. A similar hypothesis might explain the sudden caving in of large volcanoes such as that of Papandayang in Java, in 1772, when the greater part of the mountain fell in and disappeared over an area of fifteen miles long by six broad, in consequence possibly of the liquid core being suddenly removed by discharge from below, and thus leaving the interior of the mountain without its ordinary support.

CURRENT LITERATURE.

THE MAGAZINES.

Blackwood, for this month, is composed more of theological or church matter than literature pure and simple. On the articles on "Church Reform" we have no opinions to offer, but we have little doubt they will be received as invaluable in some quarters as a contribution in aid of the cause they espouse. "Statesmen In and Out of Parliament" will be found attractive, and very well worth perusal. Many will regret that there is almost an absence of matter of general interest in the magazine this month; for in *Blackwood* we always expect to find not only "slashing" articles, but able and thoroughly readable ones.

Cornhill, for May, is a good number, and

besides its clever stories we have other pregnant matter. "The Giant Planet" is a scientific contribution, but no wise dry—rather the opposite; and the article on "Sonnets" is clever, but disputable in the conclusions the writer aims at. Wordsworth, instead of Shakespeare, is awarded the palm for the best sonnets in the English language. Wordsworth has written many beautiful pieces certainly, and not a few tame ones; but we have little doubt that the general opinion of the public (if canvassed) would be in favour of the great dramatist; though there are some of his sonnets which are better out of sight and out of mind, at least to the youth of our generation, or indeed any generation.

Temple Bar is also a good number, and contains two or three articles which will afford profitable reading. "The Campaigns of Napoleon the First," "Still Waters," and "In the Rhineland Eighty Years Ago" are among these. The articles, in general, are good.

Frazer has an article which ought to attract attention among the Home Rulers in this country, entitled, "Irish Nationality." We doubt, however, if there is one in every thousand who really understands what simple "nationality" means, although they cry it out at the top of their voice. An Irish poet, of some celebrity, contributes a very good poem. Mr. Aubrey de Vere's, "King Lockhardt's Choice," is entitled to commendation. The poet is one of long standing, and his earliest effusions in Irish publications, ranging back to our boyhood days, are not forgotten by us, though forgotten by many. *Frazer* ought to be read this month by Irish readers.

Belgravia is good. We have the continuation of Mr. Sala's "Imaginary London;" it is, of course, readable, like all that author's writings. Sala can amuse and extract something amusing out of every subject he touches. If the subject does not yield it, the veteran "special" will weave a web around it, moralise upon it, and make it answer somehow or other for the exigencies of his situation. Sala writes for this generation, but his works will be scarcely remembered in the next: but perhaps he does not care much. The man who has been paid the wages of a ambassador for doing newspaper work at home and abroad is still not rich, and, like other men, has still to write for his bread, careless of his fame, for indeed the latter may be accounted in the future one of the imaginary things of London. "Go Ahead, Girls," and "An Account of Breech Loaders" are among the other papers of merit.

Tinsley's Magazine is generally good, and is really good this month. The poetry is entitled to notice. "The Musical Recollections of the Last Half Century," and "The Footlights of Other Days" will interest both the lovers of music and the drama.

London Society is attractive. "Our Philosophers," and the novelette "Kites and Pigeons," the latter which is creditably illustrated, will be found pleasant reading. The illustrations in *London Society* are, though somewhat peculiar in style, generally good.

The Gentleman's Magazine is excellent. It would be a pity if it were not able to sustain its historic reputation, for it is the oldest, and at present it is one of the best monthlies. In fiction, Mr. Whyte's "Melville's Satanella," and Mr. Joseph Hatton's "Stranger than Fiction" will supply sufficient interest to the reader of that class of literature.

St. Pauls commences with Mr. Nathaniel Hawthorne's "Septimus, a Romance of Immortality;" then we have papers on "Child Life as seen by the Poets," and "Pity the Poor Drama," an attack on the present condition of the London stage, which might have been vastly better done—the drama is, indeed, to be pitied, and those who write upon it are equally deserving of pity. Its critics (antagonistic and congratulatory) equally err in not telling the truth. The abuses of the stage are indeed growing, but it is hardly worth while breaking flies upon the wheel, if the

system which produces them is not dug out from the roots. "The Funeral of Professor Maurice" is a review of the chief features of that noted man's character; it is a review of some thought.

Colburn's United Service Magazine contains three or four interesting papers. "The Present Position of France and Germany," "How Soldiers may be procured," and "Marshal Bazaine and the Mysteries of Metz." The last article is opportune, but whether it is truthful in every respect we must wait for the result of the court martial now about to be held on Marshal Bazaine, to judge. There has been, indeed, some mysteries connected with the capitulation of Metz, respecting which we would like to hear more, but we shall await with patience.

Colburn's New Monthly has the continuation of Mr. Harrison Ainsworth "Boscobel," a very exciting and absorbing historical story, founded on events in English history of the period of 1651. The articles of "The Music of the Future," "The Rev. Samuel Twitter's Troubles," and "A True Story," can be commended to interest the reader and repay perusal.

St. James's Magazine affords ample and refreshing reading. Its serial story—"The Cravens of Cravenscroft"—is continued. We have a novelty in "The Obituary of the Month," but it will need, in future, to be more than an outline to be successful as a feature. Some of the poetry is but "middling," but there is a poem of some spirit by R. G. Haliburton, entitled, "The Fall of the Angels." "The Observances of May Day" is full of rare jottings of information about old customs. "Transatlantic Britannia" is the name of another article which makes up the readable matter of this month's issue.

In *Argosy*, *The Victoria*, *Dark Blue*, *The Month*, will be found many articles of merit which we would like to have spoken of at length, but we may hereafter allude to some of these. Sir Francis Doyle contributes some very beautiful poetry to the columns of *Dark Blue*. Some recent papers in this journal are entitled to commendation for the ability their writers have displayed.

The Mining Magazine and Review still maintains the promise its first issue gave. The general matter of the number for this month is good in the practical sense of the term. "The Mineral Resources of Switzerland," by Professor Thiesens, and "The Gold Mines of Oriental Siberia," by C. Mitchel Grant, F.R.G.S., are two excellent contributions, and replete with information. The former article is well worthy of the perusal of the architect, engineer, or builder, as well as the miner or speculating pioneer. The short articles on the "New Safety Lamp," and "Dank's Puddling Furnace," are well-timed and judicious, and the advice tendered to all concerned in the success of these new inventions should not be overlooked. Looking at the general "get up," and appreciating the worth and usefulness of this mining magazine, we may confidently augur that it will be indispensable to all engaged in the mining and cognate interests. It may also be said in its favour that its articles appeal to a much larger constituency than the mere title of the journal would imply.

THE LATE PROFESSOR WESTMACOTT, R.A., F.R.S., &c.

RICHARD Westmacott, whose death took place some days since at Kensington, was a man of considerable ability as an artist and a writer and lecturer on artistic subjects. The son of a sculptor and a sculptor himself, he inherited his tastes and cultivated them. Though he acquired the rudiments of his art under his father (the late Sir Richard Westmacott), he subsequently studied Greek and Roman art in Italy. About the year 1837 he began to exhibit at the Royal Academy, the following year he became an associate of that body, at-

tained full honours in 1849, and some years later was appointed professor of sculpture. Among his best works are:—"Venus Instructing Cupid," "David as the Slayer of Goliath," "The Cymbal Player," "The busts of Sir R. Murchison and Sydney Smith." His other works are:—"Venus and Acanus," "Paolo and Francesco," "Angels Watching," "Blue Bell," "The Girl and Faun," a monumental figure of Archbishop Howley, in Canterbury Cathedral, a bas relief "Go and Sin no More," another monumental figure of the late Lord Hardwick at Winpole in Cambridgeshire. The pediment of the Royal Exchange was also executed by him.

As an author, he wrote articles on sculpture in the *Encyclopædia Metropolitana* and the *Penny Cyclopædia*. An essay "On the Colouring of Statues," and a "Handbook of the Schools of Sculpture." Mr. Westmacott, before his death, had retired for some years from the active pursuit of his art, yet he was known to be engaged in literary studies in relation to his profession. His father (the late Sir Richard), who died in 1856, studied under the celebrated Canova, though, like his son, he was also indebted to his father for his first instruction in his art. Here we see that the grandfather, father, and grandson were similarly engaged, and that the taste of sculpture was hereditary in the family. The father of the late deceased executed numerous works, but his fame chiefly rests on his monumental statues of Addison, Fox, Pitt, &c., in Westminster Abbey, and on those of Lord Collingwood, Sir Ralph Abercrombie, and General Pakenham, in St. Paul's Cathedral. Sir Richard Westmacott also assisted Flaxman and Bailey in executing the friezes for the Marble Arch. The artist that has now passed from amongst us was born in the last year of the last century (1799) in London, the birth-place also of his father.

THE IRISH EXHIBITION—ENGLISH ARTISTS AND IRISH OUTSIDERS.

THE short query which we published in our last issue from "An Irish Artist," seems to have touched a chord of kindred sentiments, if we are to judge by the response which it has elicited. We give insertion to a few of the letters which we have received (some in an abridged form), loudly complaining of the manner in which the work detailed by the writers have been bestowed or entrusted to the sole execution of English firms and English artists superintendents, and others. We suppose our several correspondents expect us to make common cause with their grievances, but the conductors of the IRISH BUILDER, while agreeing to some extent with the writers, must also be allowed to differ from them in other matters. We are not opposed, in the first place, to English firms, or English artists competing with Irish houses, or Irish artists on a fair and honourable footing. Merit, capacity, genius, skill, and enterprise, are not local but universal matters, and of course the best and most suitable market will be sought by those desiring to be served. In the matter under dispute, there are, however, things which might have received a consideration when a native exhibition on Irish soil, the outcome of Irish minds was before the country. A public, or limited competition, or a kindly intimation to certain Dublin artists (or houses) to send in tenders would have been a gracious act on the part of the managers of the Irish Exhibition. This, in no instance that we have heard, has been done, but the whole of the contract work has been handed over to London houses, and entrusted to persons outside this country. We do not wonder, therefore, that a soreness is felt, and that the result may not be encouraging.

Perhaps the committee of management can explain matters, and put them in a different light from that in which they are viewed by a goodly portion of the public. Had Sir Benjamin Lee Guinness lived until now, we have reason for believing that matters in connection with this Irish Exhibition would have assumed a different shape. We know

what some of his intentions were, and from a correspondence which we had with the deceased gentleman, and from views which he expressed within our hearing, it is a matter of deep regret to us, and many others, that his life was not spared for some years longer. For ourselves, we need only say this much, that from the very beginning we hailed the announcement of a permanent exhibition in Dublin; and we were one of the first journals who put the subject prominently before the country, bespeaking for it national support and national thanks for its promoters.

We do not feel called upon, as independent advocates who wish to preserve a character for consistency, to deal out indiscriminate praise, whether it is deserved or not, so we hold ourselves free to write of matters as they actually are; and this is the course of policy we shall pursue in relation to the future of the Irish Exhibition of Arts, Manufactures, and Industries, or other similar undertakings instituted in the name of Ireland.

SIR,—Does it not seem somewhat paradoxical that while the newspapers, on the one hand, tell us that native genius and talent is capable of achieving almost everything in the circle of the arts, that the promoters of our exhibition, on the other hand, are doing their very best to disprove these facts (if they are facts)? If they are not doing their best to make us ridiculous as a people, why, in the name of common sense, did they send over across channel to procure some third-rate artists, and some second-rate manufacturers? When they determined on voting Irishmen "botches," why did not the promoters, committee, or directorate of our Exhibition procure "first-rate" English artists? Instead of doing this, we have stone carvers, or marble masons doing the statuary or sculpture work, the sculptors of Dublin being deemed not "educated to the standard." Poor emasculated artists of Ireland! Poor degraded artizans of Dublin! Why, sir, we have monumental marble masons in this capital who could teach some of these London statuary men their business; and we have architects, too, whose forte is above mere grotto-work or terra-cotta embellishments. Anything, of course, with the London mint-mark upon it is grand, and the "Home Rulers" had better hold their tongues about parliaments in College-green, if they cannot help the starving artizans and neglected artists of this city to a job in their own country. If I remember aright, it was only last autumn when the *Daily Express* of this city published some ambitious letters with the heading of "Home Rule in Art," when a certain church restoration was entrusted to a foreign architect. What will those journalists and their correspondents say now when they know (as, of course, they know well) that the whole of the work of preparation and ornamentation connected with our Exhibition is given into the hands of foreigners? I will tell you, sir, what they will say—nothing. Why? Because they are paid too well for public announcements and flattering notices of a few interested individuals. The "Home Rule in Art" is bottled up and corked by these gentlemen of the "Fourth Estate," and we will not hear of it again unless this "permanent" exhibition should collapse.

Are all our Irish artists dead, dumb, or starving? Resident, or non-resident, where are they? Foley, of course, knows nothing about his profession; the Brothers Farrell are not fit to be entrusted in shaping an ornamental milestone; Kirk has retired, having confessed he never was a sculptor; poor Cahill, the pupil of Hogan, no one, of course, would entrust him in cutting a death's head and cross-bones upon a tombstone—in fact, neither in Dublin, Cork, or Belfast, could one artist be found by the directorate of the Dublin Exhibition capable of executing the proverbial representation of our Patron Saint and Mother Erin.

Astounding, is it not? Shades of Edward Smyth and John Hogan, arise from your graves! Grandsons of Edward Smyth, speak out! Ye who have starved upon one meal-a-day, while you transformed the roughest stone of the quarry into an angel form. And this in the nineteenth century. Artists of Ireland, think of it well and long. With a Hibernian Academy of "Painting, Sculpture, and Architecture," a Dublin Society Art Schools, with a Cork School of Art, and a Belfast School of Art, and several other schools—with all of these, your countrymen are voted not worth a thought.

Let us hide our heads, sir, in future, everyone of us, and particularly during the time the Exhibition is open to visitors. If we go there, we will only behold our own inferiority reflected in the waters of those beautiful fountains that foreign skill has raised, to show us what could be done for Irish money. I confess, for myself, sir, I feel very, very

little indeed. I feel myself growing less and less by degrees, and perceptibly smaller every day I am permitted to live and witness the remarkable events that are now transpiring in this city. One word more. Irish artists and artizans, burn your models, moulds, casts, and templates; shake your country's dust from your feet, and betake yourselves to some other island where art is respected, handicraft encouraged, and the natives are not insulted and degraded in their own land.

"A PUPIL OF THE DUBLIN SCHOOL OF ART."

SIR,—"An Irish Artist" deserves thanks for directing attention to the way things have been managed at the Dublin Exhibition. I wonder much, indeed, that the matter has not been noticed before this. I had, myself, dropped a short note to one of our morning journals, which I supposed had the interest of the working classes of Dublin at heart, but no notice was taken of my communication. I looked in vain for the name of some Dublin firm in the articles on the Exhibition in the *Freeman's Journal*, *Daily Express*, or *Irish Times*, but found none. Everywhere, it was Mr. So-and-so, of London, "the eminent London architect," "the clever London artist," "the well-known firm of London," and a long string of other London sundries. It is, indeed, sickening and disheartening to see, in this city, such self-abasement as we find in connection with the Press. The character of their notices proves plainly that they have been either what is called "inspired" or written to order. The artizans of Dublin are, however, neither stupid nor ignorant, and they cannot be "gulled" by such practices.

I expected that the sons of a worthy father would act as their sire had previously done, but I am sorry they have allowed themselves to be overruled. I formed one of a number of artists and artizans who presented the late Sir Benjamin Lee Guinness with a small testimonial as a token of the regard in which he was held by the mechanics of Dublin. This testimonial was presented on a certain St. Patrick's Day, in the cathedral which his princely generosity restored. I remember well the reply he made on the occasion, and how much, he said, he valued the testimonial coming from the artizans of Dublin. It was always his desire, he said, on that occasion, to promote the arts, the trade and industry of this city, and he hoped that he would always be found to do so. Well, sir, he kept his word, and St. Patrick's Cathedral in its restoration from first to last was executed by Irish architects, artists, and artizans. Had he lived, and undertaken to provide a permanent exhibition of Irish arts, industries, and manufactures in Dublin, he would not have passed over his own countrymen in every branch—from the artist and architect to the common house painter and decorator to the mere builder's labourer. Enough for the present. I am, sir, your obedient servant,

J. L. O. (Stone Carver).

SIR,—Allow me to state, in reference to "An Irish Artist's" letter in your last, that I too have reason to remember the patronage bestowed by the late Sir Benjamin Lee Guinness, during the restoration of St. Patrick's Cathedral. Irish artists and artizans were not passed over, and coldly thrust aside, like what we now behold at the Exhibition Palace. Here is an Exhibition claiming to be Irish, and appealing to Irishmen for support, yet, almost if not all the preparatory work, as far as architectural, artistic, and mechanical services, has been given away to London professional men and manufacturing firms. I hope the tradesmen of Dublin will remember this. Despite the "puffs" of some of our daily papers, I for one, who have obtained a peep within the building and gardens, can confidently say that everything I beheld could be done as well in this city, and a great part of the work of ornamentation could be much better done. I am not opposed to foreign artists competing with Irish ones, but I am opposed to the wholesale bestowal of the statuary, manufacturing and decorative work to London houses. Added to this, the appointments connected with superintendence are also given away to Englishmen. In these and several other matters, Sir Arthur Guinness is not following the footsteps of his worthy father and grandfather. I wonder what are we called upon to feel thankful for. Permanent Exhibitions are not to be formed by degrading Irishmen, and voting them as unworthy to be entrusted in performing the most commonplace work.

Yours &c.

ANOTHER IRISH ARTIST.

SIR,—Although the Messrs. Guinness retain the right of expending their moneys in conformity with the conditions on which they voted it—viz., of having the entire control and management of the Exhibition, we think they were, at the same time, bound in justice to this country, to encourage native trade in the expenditure of those moneys. We are

led to make these remarks in consequence of the queries of "An Irish Artist," whose letter appeared in your last issue. There is no use in concealing the fact that great dissatisfaction has been caused in this city on account of the manner in which the work in connection with the Exhibition Building has been parcelled out to London firms. We are, ourselves, pretty large employers of Irish labour, and though we employ foreign labour in our contracts, we never pass over native talent, and we find no difficulty in obtaining competent hands to do every kind of ornamental work which we may require. Notwithstanding that a great mistake has been made in many matters connected with the Irish Exhibition, we trust, at the same time, it may be successful. Irishmen, we know, are quick at resenting an insult, or when they suppose that an affront has been given. It is not for us to say that a direct insult has been offered by the employment of London firms, overseers, superintendents, and the entrusting of almost all the work to artists, artisans, or others belonging to the sister kingdom. This much we do know, whether it has been owing to accident or design, it is nowise a very favourable herald of success.

If the works at South Kensington, of design and decoration, were altogether entrusted to a Dublin firm, with no one but Dublin architects, artists, and operatives employed, we dare say there would be a characteristic howl on the part of the London Press.

The work of an Irish Exhibition, without Irish artists, &c., is but the shadow of a reality, and we cannot have *Irish art* without native artists and native craftsmen. We are, sir, yours,

"A DUBLIN FIRM."

SIR,—I think that the artists and artisans, and even the employers of Dublin, are called upon to express their dissent to the manner in which the Committee of Management of the Irish Exhibition have acted in handing over the entire work of preparation to London firms. I think, sir, no small indignity has been cast upon the art and mechanical capacity of our people, and I hope that this slight will be remembered. I recollect—several years ago now—that when a certain testimonial, in memory of a clever Irishman was about to be given to an artist abroad, public indignation kindled up at the attempt. Sir Richard Morrison, Dr. Petrie, Stewart Blacker, the brothers Farrell, the Messrs. Kirk, the grandson of Edward Smyth, and several other distinguished Irishmen, architects, artists, sculptors, painters, &c., publicly stated by letters that there were resident artists in Ireland capable of achieving anything in the way of statuary and ornamentation, and that it was little short of a scandal to send the proposed work for execution abroad.

The Committee of Management of our Irish Exhibition, it would seem, think otherwise. They appeal to us for support to make the exhibition worthy of the country, while by their very acts they have made it unworthy of our support.

As one who has done his best to support native talent as an artist and an employer, I protest against the conduct of the authorities or managers controlling our so-called Irish Exhibition.

T. A.

SIR,—On public grounds we feel compelled to draw your attention to the following correspondence, showing the injustice which is about to be perpetrated upon Irish Carriage Builders at the Exhibition of Arts, Industries, and Manufactures, to be opened in our city next month. If our cause of complaint be not exceptional, we fear the project of Sir Arthur Guinness, instead of proving a means of encouraging Irish talent and industry, will be made entirely subservient to the interests of British manufacturers, who appear to have by some means acquired a monopoly of the best positions for displaying and, as a matter of course, selling their goods. Invoking the powerful aid of your influential paper for the purpose of exposing and redressing this Irish grievance, we beg to remain, sir, your obedient servants.

H. E. BROWN AND CO.

Redmond's Hill.

To the Executive Committee of the Exhibition of Arts, Industries, and Manufactures, Exhibition Palace, Dublin.

GENTLEMEN,—We beg respectfully to state that the position assigned to us for showing our carriages at the forthcoming Exhibition is by no means a suitable one, or one that would afford us a fair opportunity of competing with other carriage builders for public favour, particularly English exhibitors, who have been singularly favoured by the position they are to occupy. In an Irish Exhibition, we respectfully submit, if there is to be any favour shown, it should be to native manufacturers, who have so much to contend against in order to secure

even a small share of the patronage of their own countrymen. Can we not be allowed to put our carriages alongside our competitors from England, and let the nobility and gentry of Ireland, who at present send their orders to England, have an opportunity of seeing that we are able to supply them at home with carriages superior in some respects, and not inferior in any, as well as at much lower prices than they can obtain them from the other side of the channel? We are patentees and sole manufacturers of two carriages, "The Waldegrave Landau," and "The Prince Arthur Brougham," which we shall be glad to exhibit if we have an opportunity of doing so in a prominent position.

H. E. BROWN AND CO.

Exhibition Palace, Dublin,

27th April, 1872.

Messrs. H. E. Brown and Co.

GENTLEMEN,—I have to inform you that your letter of the 23rd inst. was placed before the General Committee yesterday, when the following resolution was passed, viz.:—The committee greatly regret that the existing arrangements with regard to the carriages are final, and that, therefore, with every desire to meet the wishes of those builders who complained, it is not in the power of the committee to accede to their request.—Yours faithfully,

GEO. BRABAZON WOOD,
Sec., Section C.

We have received, in addition to the above, several other letters which we cannot find room for, complaining in the same strain. Among these are two from "Marble Masons," one from "A Landscape Gardener," "A Painter and Decorator," "A Brass Founder," "A Gas Fitter," "A Builder," "An Architect's Assistant." If it should appear desirable, we may print some of them in our next issue.

HOW THE STREETS ARE IMPROVED.

WHEN will the Corporation of Dublin, or any committee of it, or even any well-paid official of it, be he engineer or other, ever give us an opportunity of thanking them for performing satisfactory work? Before us lies the Report of the Committee of the Whole House in re the State of the Streets.* Mountains have produced mice before now, and if this report represents the concentrated wisdom of the Municipal Council of Dublin, this city and its population is indeed to be pitied. Although we are led to believe a committee of the whole house took counsel together, we know very well the "resolutions" are the work of one or two individuals. It is pitiable, indeed, to think that when any urgent work is required, not one man in the Corporation can see an inch before his nose how it may be done by a little self-exertion. By begging and borrowing alone, and increased taxation, can the Corporation see their way through their difficulties. To macadamise the streets, purchase steam-rollers, scavenging carts, waggons, and other plant, a sum of £50,000 was recommended to be borrowed on the credit of the Improvement Fund. It is strange, indeed, that the Corporation—who have so much experience in borrowing and pledging the credit of the city—that their collective wisdom cannot discern the extent of their borrowing powers without consulting law-agents and counsel in the most trivial matters. Of course they seem to think there is no use in having a law-agent unless he does something for his pay, consequently he is allowed every opportunity for swelling the bill of costs.

Well, to the point. The result of the labours of the Committee of the whole House was, that the engineer was called upon to draw up a report on several matters in relation to the streets, and the best way of keeping them in repair. In connection with his labour in relation to paying material, the engineer was to report whether traction engines with suitable scavenging waggons could be used effectually in the removal of the scavenge of the streets. The engineer, in accordance, drew up his report, but we fail to find that he has at all complied with the resolutions of the house. One of the

funniest things he was called upon to do was in the following resolution:—"That the engineer be directed to ascertain whether and on what terms the Tramways Company would *pave the balance of the streets through which their tramways pass*, and report to this committee." In the report of the engineer we are furnished with a list of the streets of which the Tramways Company will be bound to pave between and outside their rails, and the probable cost of completing the pavement of those streets and roads which the Corporation are called upon to pave and keep in repair, instead of the Tramways Company. The latest estimated cost of paving the parts of the several streets with setts which will be left unpaved by the Tramways Company is put down—

For the north side of the city,	£25,040	6	0
" south " "	15,932	2	0
	£40,972	8	0

As there are several streets, in the opinion of the engineer, north and south of the Liffey, that need not be paved at present, the engineer thinks a saving may be effected by letting them take care of themselves for some years longer. He gives an enumeration of these streets, some of which, to our knowledge, are in anything but a good condition. However, to give a look of care and economy to his report, we are furnished with a reduction in the estimated cost for the north side of the city of £13,145 8s., and a reduction for the south side of £7,157 8s., making a total of £20,302 16s. If this was a *bona fide* saving, we should be glad to have it, for the sake of the suffering backs and pockets of our fellow-citizens; but it is only a staving off for the present, for these streets will have to undergo repair very shortly, as they are leading thoroughfares.

In the Report of the Special Committee of the Council, dated March 19th, 1863, of which Major Knox was chairman, it was recommended by the engineer that certain streets on the north side, to the number of nine; and on the south to the number of eleven, should be paved. It is cheering news to hear that in the year 1872, the only part of this work performed was the paving of a portion of the North Wall. We are told that the remaining portion of the North Wall and the Custom House Quay will be paved this year [will it?] out of moneys to be raised by presentments passed last November.

The engineer recommends that next November a presentment be obtained for paving the City Quay and Sir John Rogerson's Quay. Besides the streets recommended to be paved in Major Knox's report, the engineer adds a list of twelve more—a few on the north, and the remainder on the south, which are, to our knowledge, in a very bad condition. Finally, we have a list of streets to the number of twenty-one, for which an estimate is given of the cost of paving, which will amount, it is said, to £19,626. This is to be added to the cost of completing the streets to be partly paved by the Tramways Company, the sum for which is £20,302 16s., making a total for paving of the said streets of £39,928 16s. Mark, the engineer recommends this sum should be borrowed, and the work executed.

It is needless for us to go over the opinions of the law-agent as to the borrowing powers of the Corporation in relation to the Dublin Improvement Fund, and the District Sewer Rate. Sufficient to state that the Corporation are informed by their law-agent that their borrowing powers are still unexhausted to the extent of £75,500. Happy announcement, for which the District Sewer Rate and the Improvement Rate will have to bear a hydraulic squeeze, which means, of course, the ratepayers' pockets. "Appendix C" is one of the most astounding "returns" of receipts and expenditure we have looked through for a long time. Presuming it to be correct, in this account of the condition of the Improvement Fund for the last five years we have certainly food for thought and indignation. We can now only point to the one item put down for "Law and Parliamentary

* Report from the Committee of the Whole Council, &c., as to the State of the Streets. Dublin: Joseph Dollard, Printer. 1872.

Expenses" in connection with this fund. For 1867, £577 10s. 7d.; 1868, £1,067 2s. 10d.; 1869, £668 12s. 6d.; 1870, £1,201 9s. 5d.; 1871, £554 2s. 5d. We believe the total of these figures make something like the sum of £4,068 17s. 8d., a nice crumb for law expenses in connection with "The Improvement Fund."

There are some other curious and suspicious items,—moneys paid for work that cannot be seen by the public now. Goodness knows what manipulation these accounts had to undergo before they were knocked into their present form. These are mysteries to some, but not to all.

Like everything else that is performed expeditiously by the Corporation, this report of the "Committee of the whole House" was submitted on the 15th of February last, and we find it was only printed and presented to council on the 6th of the present month. So there is a palpable untruth stamped on its title-page in the words "12th of April, 1872." What were the reasons for keeping back the issue until the 6th of May?

What about the annual statement of the Corporate accounts, which ought to be in the hands of the ratepayers? In two months' time probably it will be issued.

Concluding for the present, we must say that this report about the streets is a most unpractical one, and that it is unsatisfactory and useless to a great extent from the manner in which it is prepared. The first portion is composed of resolutions and recommendations, and the engineer's part is composed of the same thing, besides it is in nowise an answer to the instructions he received, but we indeed must say he exercised his common sense in avoiding to give an answer to certain questions the "committee of the whole house" put to him. The state of the streets of Dublin may be known by anyone of intelligent observation who passes through them. Whoever knows their true condition and then reads this report can only come to the conclusion that Dublin is locally ruled by a race of animals who have worn off their tails by a prolonged sitting.

ARCHITECTURAL ASSOCIATION OF IRELAND.

A MEETING of the above Association was held at the rooms of the Royal Institute of the Architects of Ireland, 212 Great Brunswick-street, on Thursday evening, the 9th inst., J. H. Owen, A.M., President of the Institute, in the chair. It was resolved as follows—"That the junior members of the Architectural profession, feeling that a strong necessity exists that they should derive mutual benefit from meeting together and discussing points bearing on their profession; also by sketching classes, and paying visits both to ancient buildings and works in progress. Having called preliminary meetings, and finding that the idea is favourably entertained, they now beg to call together a General Meeting to take into consideration the formation of an Architectural Association of Ireland. Whilst they do not wish to be considered in any way antagonistic to the Royal Institute of the Architects of Ireland, they are desirous, as junior members of the profession, to be still under its guidance, yet acting as an independent body."

It was also resolved—"That gentlemen be requested to send in their names as members of the Association, and so soon as a sufficient number be enrolled, that further meetings take place."

The Meeting then resolved itself into a general one; it was arranged that a provisional committee be appointed, consisting of the following:—Chairman: J. H. Owen, M.A., President of the Royal Institute of the Architects of Ireland; Committee: Messrs. Thomas H. Longfield, John L. Robinson, E. S. O'Callaghan, D. J. Freeman, C. H. Brien, R. S. Swan, W. P. Ryan, and W. J. Doolin; and that they shall have power to receive names of proposed members; also to draw up a draft of rules to be submitted to the next General Meeting for the carrying out of the objects of the Association.

TO CORRESPONDENTS.

ARCHITECTURE AND ARCHAEOLOGY.—We would particularly direct the attention of our readers to the continuation of the paper of Mr. Brash in this issue; also the paper of Mr. Young. The subject of each is one of great national importance.

SANITARY.—A person with half an eye and half a grain of wit can see through the motive that led to the introduction of the "Sanitary Works" Bill that Sir John Gray and Mr. Pim have been pressing on in the House of Commons. It is simply another attempt to hoodwink the public. No matter what exemptions the Corporation of Dublin might succeed in claiming, the ratepayers (as a body) would be very little the better of it. If the Bill was passed it would only afford the Corporation further room to carry on their career of scheming extravagance.

AN EXHIBITOR.—In the correspondence we print the same opinions are expressed. Our columns are open to all who have a grievance, and can state it without indulging in personalities.

TRINITY COLLEGE.—A respected correspondent here is informed that we cannot disclose names without the sanction of the authors, and the latter we believe in the case in question do not care to be at present recognised.

VERITAS.—Our correspondent communicates information that has been long known in Dublin,—viz., that certain noted and well-known members of the Town Council received very handsome commissions for interesting themselves in procuring Corporation jobs for contractors. This work has been going on since the era of the Waterworks, and we have reason for believing that negotiations have taken place in respect to similar matters recently. "Feelers" at all events have been thrown out, but the rest will have to be told in the story of the Main Drainage.

TOPOGRAPHICAL SURVEY.—The subject will be treated of in an early issue.

IRISH BOOKS.—Some useful works may be picked up at John O'Daly's book-shop, Anglesea-street, Dublin. Students of Irish history, English or American visitors, and others, would do well to give a look into that establishment.

SCHOOLS OF ART.—The Dublin Society School affords facilities, and the Royal Hibernian Academy, for young students, but this city stands woefully in need of a collection of good models.

ERRATUM.—In "Notes on Early Gardening" in last issue, for "the bad Dublin taste" read "the bad Dutch taste."

PUBLIC RECORDS.—Some objections, we hear, have been taken to portions of our article in last issue. We will have an opportunity of alluding to the subject further in next issue, when we may be better understood.

Several matters will have to stand over, inclusive of sanitary intelligence, architectural, and "correspondence."

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—Civil Service Gazette. Made simply with Boiling Water or milk. Each packet is labelled—JAMES EPPS & CO., Homoeopathic Chemists, London. Also, makers of Epps's Cacaoine, a very thin beverage for evening use.

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From WILLIAM TITE, Esq., M.P. for Bath, and Architect of the
Royal Exchange, London.

House of Commons, 2nd March, 1864.

DEAR SIR,—In reply to your note, I beg to say that I have
used both the sorts of Cement manufactured by your firm, and
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Portland Cement. I believe these Cements, manufactured by
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other. You are at liberty to use this note, if you think it ne-
cessary.—I am, Dear Sir, your obedient servant,
Messrs. White & Son. (Signed) WILLIAM TITE.From R.O. MINNIE, Esq., Surveyor to Board of Ordnance, London.
War Office, Pall Mall, London, S.W.,
3rd March, 1864.GENTLEMEN,—In reply to your request, I have much plea-
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(Signed) R. O. MINNIE, Surveyor.

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The Irish Builder.

VOL. XIV.—No. 299.

The Population and the Public Health.

FROM the last Quarterly Return of the Registrar-General of Ireland we glean a number of facts which but too plainly prove the truths that we have again and again preached in these pages.

Let our readers take note of the following figures, for indeed they are suggestive. The population of Ireland on the night of the 2nd of April, 1871, as compiled from the enumerators' summaries, was 5,402,759, 2,632,123 of which were males, and 2,768,636 females. These figures have not yet been revised, but even in their present shape they are sufficient to draw conclusions. The births registered during the fourth quarter of the year 1871 amounted to 35,017, 17,942 of which were boys, and 17,075 girls, affording, as the Report says, an annual ratio of 1 in every 38·6, or 2·59 per cent. of the population. During the corresponding quarter of the previous five years the number was 33,481. The registered deaths were 22,179, 11,100 of which were males, and 11,079 females, affording an annual ratio of 1 in 60·9, or 1·64 per cent. of the population. In the corresponding quarter of the previous five years the number was 20,660. The above returns are without doubt imperfect and unsatisfactory, and goes to prove that anything like a complete registration does not take place in the country.

In England we learn that 1 in 29 or 30 of the births, and 1 in 44 or 45 of the deaths, is the annual ratio; whilst in Ireland the births are 1 in 38·6, and for deaths 1 in 60·9.

The registrations in respect to the marriages are far more unsatisfactory, but non-compliance with the provisions of the 26th and 27th Vic., cap. 90, may be accounted for on different reasons from those of the sister kingdom.

According to the returns, the number of emigrants who left the ports of Ireland during the quarter ending the 31st December last amounted to 10,097, 5,580 males and 4,517 females; being 358 more than the number who left during the corresponding quarter of 1870. It is a sad thing to witness this increase, even though small. Taking the return as a basis, and allowing for the deaths, and viewing the registered births and the number of the emigrants, there appears to be an increase of 2,741 in the population during the quarter ending December last.

The prices of provisions had, of course, an effect on the health of the population, for the poor are obliged, when they are high in price, to stint themselves, and are often, in consequence, forced to consume inferior food. They also suffer, on the other hand, during a severe winter from scanty clothing. During the last quarter of 1871 the price of Messrs. Manders and Co.'s 4lb. loaf was 8d., being one penny higher than the average price in the corresponding quarter of the previous year, and 2½d. dearer than in the fourth quarter of the year 1864.

Oatmeal is an article of great consumption in Ireland, and we see that for several years

there is a gradual increase in price. In the last quarter of 1871 it was 15s. per cwt.; in 1864 it was only 10s. 10d. per cwt. The price of potatoes, too, seems to be on the increase for several years, though they drop a few pence in the hundred-weight at stated intervals. In the matter of beef, there is also a serious increase for several years. In the last quarter of 1870 the prices were from 58s. to 70s. 6d. per cwt., against 54s. to 70s. 6d. in the corresponding quarter of 1870. In 1864 the prices were 49s. 6d. to 65s. 6d. We see by the above figures that the prices of provisions are going up, and that the wages of a great portion of the population are stationary.

The number of persons receiving in-door relief in the last quarter of 1871 was 44,957, as against 46,674 in the corresponding period of the previous year; and the number of out-door recipients was 23,878, against 20,640 in the last quarter of 1870. Of the persons receiving in-door relief during the last quarter of 1871, there was an average of 534 in each week located in asylums for the blind and the deaf and dumb, and in extern hospitals. In the corresponding quarter of the previous year the weekly number was 505.

The deaths from small-pox during the quarter amounted to 441. *All the registered deaths* from that disease in the year 1870 numbered 32. This is something worth reflecting upon. Scarlet fever was reported prevalent by no less than 89 registrars in their several districts, and in some cases the disease assumed a very severe type. Of the 42 deaths registered in the Castlegregory district, Dingle Union, 19 were caused by scarlet fever. The registrar of this district gave the following picture of its sanitary condition:—"The water used for drinking is procured from holes dug for the occasion in the sand. It is consequently often impure, and often disgusting. Despite the efforts of the relieving officer, who has been zealous to mitigate nuisance, the sanitary state of the village of Castlegregory stands in need of great improvement. Only one well supplies the whole village with water, and it is situate at the bottom of a long street, placed on a considerable declivity, down which flow, after every fall of rain, streams laden with filth, a portion of which inevitably enters it, despite of all care, and some improvements which have been made in connection with the well. *In all parts of the district, and of the Union, wherever the supply of water is comparatively pure, scarlatina has either not existed, or has been very mild, while, on the contrary, it has been exceedingly fatal where the water is obviously polluted.* In Castlegregory especially, but also at Magharees, the severe and fatal cases occurred, almost without exception, in the houses that an experienced observer would *a priori* have pointed out as peculiarly liable to such fatality."

The above fully confirms our continual advice about the necessity of a pure water supply, and proper drainage. In the Dunlavin, Baltinglass, and the Newmarket districts, deaths from diphtheria are reported, a disease hitherto unknown in these localities. Whooping cough prevailed in several districts and in many instances proving fatal. To those interested in the subject of centenarian lives, a fact which the late Cornwall Lewis strenuously doubted and did his best to disprove, it may interest some people to know that the deaths of 11 centenarians were reported—one person dying at Clonmoyle, Macroom Union, who is stated to have

attained the age of 108 years. In Donegal, Banbridge, and Kinnistymon, there died three persons whose respective ages are stated at 105 years.

The entire number of births registered in Ireland during last year was 151,665—77,553 boys and 74,112 girls, affording a ratio of 1 in 35·6, or 2·81 per cent. of the population; the average number registered annually during the year 1860-70 being 146,518.

The entire deaths registered in Ireland during 1871 was 88,720—44,505 males, and 44,215 females.

The number of emigrants for the year 1871, as obtained by the enumerators, was 71,240 (leaving the ports of Ireland). Calculating the number of births, deaths, and emigrants leaving our shores, there appears to be a decrease of the population in 1871 to the number of 8,295—a very serious decrease indeed.

The Quarterly Return states that many districts remain in the most wretched condition as to sanitary arrangements, and that the provisions of the Sanitary Act of 1866, are rarely if ever brought in force.

The worst side of Dublin, north and south, is not presented in the return of the Registrar-General, but we are well acquainted with the frightful example presented in this city of sanitary neglect. We think that, if in the future returns, the corporate authorities and local boards who are neglectful of their sanitary duties throughout Ireland, were named, the enumerators, and the Registrar-General would confer a benefit on the country. Corporate authorities and town commissioners are the greatest sinners against the public health, and until they are forced to do their duty, our towns and cities will remain hot-beds of disease, and the condition of our people will be a subject of national reproach.

PUBLIC RECORDS IN IRELAND.

WE have already alluded to the issue of the Fourth Report of the Deputy-Keeper of the Public Records in Ireland. In looking over the Report again, we note one or two things of some interest that ought to be more fully known—the existence of large diocesan collections throughout the country. Many of these, without doubt, are valuable. These documents remain in the custody of the Diocesan Registrars of the late Ecclesiastical Courts, and in the hands of individual incumbents of the Disestablished Church. There is no question but these records ought to be transferred to the capital, unless indeed it may be thought advisable, in course of time, to have four record buildings—one in each province—in which the local documents of each province might be deposited, reserving the more important national manuscripts for Dublin. Wherever the diocesan collections may be finally deposited, of course they ought to be accessible to all who from their vocation have a claim to their inspection. The documents and records of the Irish Established Church Commission were handed into custody of the officials of the Record Office last year, and are already a part of the history of the country.

Respecting the Agricultural Returns, a large mass of which were stored at the old offices in Henrietta-street, these have been removed to the Record buildings—the new offices of the Registrar-General at Charle-

mount House not affording sufficient room for the whole collection.

The portion delivered over to the custody of the Deputy-Keeper is for the years 1860 to 1865, and we quite agree with the opinion of Mr. Ferguson, that "They are calculated to afford very valuable evidence as to the actual condition in point of tillage and yield of each particular farm in the country from one year to another, and may hereafter afford the means of correcting oral testimony on questions of fact, which may be expected to arise as to the condition of lands in times past, under the Land Act." The whole of the Agricultural Return series, from first to latest, will be valuable hereafter. Upwards of a generation has begun and ended since they were commenced.

One item given by the Deputy-Keeper, towards the conclusion of his Report, shows the value of these national collections, and records, as sources of reference.

The fees received for inspections and transcripts during the year 1871 amounted to £454 16s. 6d. as against £281 17s. 6d. for the previous year. This increase, according to the Deputy-Keeper, "is due in part to searches and copies in relation to testamentary business, which is peculiar to this office, and only beginning now to be felt, and partly to the gradually increasing extent of general record deposits." Mr. J. T. Gilbert, as representative of the Royal Commission on Historical Manuscripts, is entrusted with various documents from private collections, and, as Secretary to the Record Office, a bay of the Record Treasury is allotted to him for the secure disposal of these collections. We are glad to see that the photozincographic process has been availed of for the reproduction of facsimiles, a method which has been utilised with immense advantage in carrying out the topographical and ordnance surveys of Great Britain. We would, however, like to see a department in Dublin as well as in Southampton, and there would be many years' useful and valuable labour before it to accomplish. There are many rare MSS. of which we ought to have many copies, for the use of historical students and Celtic scholars, and also for the use of museums outside the country.

From the Report of Sir Bernard Burke, the Ulster Keeper of the State Papers in the Record Tower, we learn that the collection styled the "Irish Civil and Miscellaneous Correspondence," dating from 1685 to 1799, comprises 7,000 letters. These letters, when they came to be arranged, were in great confusion; but to remedy the defect, the Keeper had them arranged chronologically and alphabetically, according to the writers' names. The Index prepared gives the correspondents' names, the dates of the letters, and the places from where they were written, and extends to about 250 pages. This Index is nearly complete. Respecting this collection, Sir Bernard Burke says:—"This correspondence exhibits the state of Ireland during a period of which there are but few illustrations, and gives a very good insight into the social state of the kingdom." The classification and arrangement of the "Miscellaneous State Papers" is nearly finished, and they embrace a numerous collection, on matters of historical importance. Among these papers, here are a few:—French Invasion, Fencible Regiments, Knights of St. Patrick, Defence of Ireland, Ribbonism, Roman Catholic Association, Smuggling, Surveys, Trade and Manufac-

tures, the Union, the United Irishmen, the Yeomanry, Crown Witnesses, Battle-axe Guards, Forfeited Estates, Combination, Corporations, Suffering Loyalists, Secret Service, Returned Letters, Military Secretary, Dublin Police, Lotteries, the Volunteers, Palatines, Tithes, Freemasons, Gunpowder, Inland Navigation, Maynooth College, Trinity College, Woods and Forests, and Public Works. Many of the above documents would, no doubt, on perusal, startle not a few. In the Calendar of the "British Departmental Correspondence" of the departments in England with the Lord Lieutenant and Chief Secretary's department in Ireland, the arrangement is carried down to 1732, commencing from the year 1683. An "Index Nominum" is preparing by the Keeper for the Calendar, and, when completed, Sir Bernard believes that "documents of the first importance regarding a period of history hitherto deficient in documentary evidence will be available."

An Index to Church Valuations for 1672 to 1815 has been made, and finally, the Keeper says, there is in hand and nearly completed an "Index of Officers' Widows' Account, 1716-1749"—"A curious collection, supplying what was often sought for heretofore fruitlessly, the names of officers, their rank, and the regiment to which they belonged."

A word by the way of finis. We believe now, as we always have believed, in the matter of the public records of this country, that the Government are most remiss in their duty and most niggardly in the assistance they render towards the performance of a really important service. Many valuable documents and records have gone long since to rot and ruin, and many more are not far removed from the same danger, from lack of means and a staff sufficient to classify, and conserve, and digest them for educational and historical purposes. There are very many valuable Irish MSS. which need transcription and translation, and we have no doubt, if the Government would offer to the Royal Irish Academy some little aid, these documents would soon see the light. Their preservation is quite as important as many of the public records now being classified and arranged.

TOPOGRAPHIA HIBERNICA.

PART FIRST.

ABOUT the year of 1824 the Government needed for various purposes a general valuation of Ireland, and resolved, by a vote of the House of Commons, to carry out a survey of the entire kingdom. The sum of £5,000 was granted as a beginning towards a trigonometrical survey, and a committee was appointed to consider the best mode of performing the work. During the sitting of the committee evidence was received from the following gentlemen, some of whom were actively employed afterwards in executing the work:—Major Colby, Mr. Spring Rice (afterwards Lord Monteagle), Mr. John Wilson Croker, Lieutenant-Colonel Keane, Mr. Leslie Foote, Mr. Richard Griffith, the last being a name now inseparably connected with the valuation of Ireland. Among the engineers were Messrs. Bald, Nimmo, Edgeworth, and Aher, along with Captain Kater and several others. From the report drawn up much information, interesting otherwise than for mere assessment purposes, was obtained. The survey and valuation was treated separately by the committee, but the material part of the report we shall here touch upon.

The surface of Ireland was stated at about twelve millions Irish, or twenty millions English acres, contained, as we are aware, in four provinces and thirty-two counties. The sub-divisions run on as eight counties of cities, or townships, or other independent jurisdictions, two hundred and fifty-two baronies, about two thousand four hundred parishes, and the still minor sub-divisions of townlands, amounting in the aggregate to a very great number.

Had this report of the committee of 1824 been drawn up at the present time, or even twenty years ago, a good deal more information might have been included respecting early surveys and maps made and overlooked. For instance, it has been remarked that there was no notice taken of the survey of Ulster, made in 1618-19, under the Royal Commission by Pymar and some others. This last may be found in Harris's *Hibernica*. On the authority of Mr. Nimmo, the report states that "Strafford's Survey of the Forfeited Lands" was a memoir terrier, or written description, embracing outline maps, but it is supposed that all the documents in connection with this survey have been lost.

There is every reason for believing that some of our early Irish monarchs caused surveys to be made of the districts or divisions of country over which they held sway, and it is certain that under the Brehon Code divisions of land were small, and enumerated for sept and family purposes. These divisions are traceable at the present day, for the names of several of the old nobility or princely families of this nation continue to still exist in the names of places in each of the four provinces. Most of them were, however, disturbed or affected by the different settlements and forfeitures carried out in the four provinces under James, Elizabeth, Cromwell, Charles, and William, and others of a still earlier date. The forfeitures were at least regulated by the prior divisions as well as the grants. It would be an interesting detail to have a reliable account of how the annual or other distribution of grazing or arable land was carried out by the early Irish. Very little, we think, was included under tillage, for the principal occupation was either in hunting or the care or management of cattle, the possession of an immense number of the latter constituting real wealth, and furnishing means for ransom, or paying penalty or eric for an infringement of the laws of the Brehons.

In the 14th volume of the *Transactions* of the Royal Irish Academy there is a paper by Mr. James Hardiman, the historian of Galway, on Irish maps. He states that surveys were made by the early Irish chiefs or monarchs, and that fragments of these works still exist. One of the earliest maps of Ireland published seems to be that in the "Itinerary of Antonine," published by Ricardus Corinensis in the fourteenth century, with latitudes and longitudes taken from a table made by Ptolemy. This early geographer places Mona and the Isle of Man, with other isles and islets, among the isles of Ireland; and Ware, who notices the fact, says also that Macianus speaks of Ireland having sixteen provinces, fifteen famous cities, five noted promontories, and six eminent islands.

These early geographers and navigators were gifted with wonderful powers of observation; but we can forgive them their faults because, as pioneers, they laid the foundation of a science and mapped out a path that others afterwards followed with benefit to the human race.

Next we have the maps of Mercator and Hondius, based on Norse and Danish authorities, but these are of no great value except as links in the history of Irish topography. In "Arrowsmith's Memoir" we have a map of Ireland of the fifteenth century. Aaron Arrowsmith executed about one hundred and thirty various maps, and was a very industrious map-maker, who raised himself from an humble position to a prosperous one. He died in 1823.

Mercator was the first to represent the meridian by equidistant parallel lines, and the parallels of longitude by lines at right angles with the meridian. From this arose the name of "Mercator's Projection," employed in nautical maps. Mercator engraved and coloured his own maps, he was so exact about their performance. He died about 1594.

Ricardus's map was reprinted by Bertram, along with that of Nennius and Gildas, in 1755. Speed's map of Ireland, in 1610, and of the four provinces, is interesting, and particularly that of Dublin, which may be found accompanying works relating to matters connected with the history and resources of the county and city of Dublin. John Speed was originally a tailor, but through the liberality of Sir Fulk Greville he was enabled to devote his later years to publishing many works, the materials of which he had collected during his travels for many years over Great Britain. Speed was an Englishman, and died in London in 1629.

In the State Papers of the time of Henry VIII. there are three Irish maps printed from old MS. maps. One is a map of Munster, another is that made by John Goghe in 1557, and the last by John Mordeu, made for the Earl of Salisbury. These maps are somewhat interesting, from the fact that they contain clan names, and also include topographical maps of great value to the antiquarian. One of these maps has the arms of the principal families in the country. There are maps of Ireland—of Munster, and of fifteen places in that province, in the *Pacata Hibernica*, edited by Strafford in 1633. These are very roughly engraved, but they will be found of value. Danville has a map of ancient Ireland, and Ware, in his "Antiquities," gives a map of ancient Ireland, made up from Ptolemy, Orosius, and Camden. There have been many maps of ancient Ireland given in modern times (in the seventeenth and eighteenth centuries), based upon the labours of the old geographers, but they are not accurate.

Few students of Irish history are unacquainted with the celebrated Down Survey, which was executed by Sir William Petty, Physician General under the Commission dated 11th December, 1654, at the payment of 20s. a day, and 1d. an acre. A word about Petty. In 1652 he was appointed Physician to the Army in Ireland, and here he became Secretary to Henry Cromwell, the Lord Lieutenant of the country. Petty, with the aid of some Cromwellian soldiers, whom, it is said, he trained in about the space of two months, set about the survey of the forfeited lands. The chain only and circumferentor was used by these rough and ready surveyors, who were also willing ones, because they obtained a slice for their labour. These measurements were remitted to Dublin, where they were plotted or laid down. Hence, we are told, arises the name of the Down Survey. Petty was dismissed from his employment in 1658, and a charge was brought against him in the House of Commons, but at the Restoration he was knighted, and made Surveyor-General of Ireland. His "Political Anatomy of Ireland" gained him some fame in his day, but his survey is likely to be remembered, and may in course of time prove of service in a direction little dreamt of. Petty's survey embraces both barony and parish maps of about two-thirds of Ireland, the former on a scale of forty perches to an inch, containing parish and townland boundaries, mountain and bog marks, and other details. These maps are now included in our Public Records Collection, and number 1,430, 260 of which are baronial, 1,170 parochial. There are 130 baronial maps perfect, 67 partly destroyed or burnt, and two or three missing. There are 780 parochial perfect, 391 burnt in 1711. In the King's Library in Paris a copy of the baronial maps exists, being taken by a privateer, when on their way to England, for Sir William Petty. Tracings of those maps were made by General Vallancey, the antiquarian, and by Major Taylor. An account of this survey copied will be found in the

King's Inns. There are marginal descriptions and references to the "Book of Distributions" of forfeitures contained on Petty's maps. In themselves these maps are intended to furnish evidence between the crown and the subject, or between two or more subjects holding as guarantees from the crown by that distribution.

The Lansdowne collection is said to contain some maps relating to the above. A folio County Atlas was also prepared and published by Sir William Petty; and that printed in London in 1720 by Rowles was taken from the works of Petty and Pratt.

There is an official survey of the forfeited lands in William's reign, comprising upwards of two millions of acres. This survey, we believe, is accessible. It was formerly lodged in the Vice-Treasurer's office. Of maps and surveys of the eighteenth century and early in the present century, a list was given by Mr. Bald, as part of his evidence, included in the report already alluded to. The list comprises a map of Ireland in 1716, by Thomas Bakewell, and also a map of Dublin; Herman Moll's map of Ireland; Ortelinus' (Charles O'Connor) map, with the names of the septs at the commencement of the seventeenth century; an improved edition of the former, in 1777, containing proprietors' names; a map of Ireland, by Pratt, in six sheets; ditto, J. Rocque, four sheets; ditto, C. Bowles, four sheets; ditto, Jeffries, one sheet; ditto, Kitchen, one sheet; ditto, Major Taylor, 1793, one sheet; ditto, Beaufort, 1793, two sheets, with a memoir of a very meagre description; Taylor and Skinner's map of Irish roads in 1777; Arrow-smith's, in four sheets, 1811; these have been often reprinted. There are also the maps of Ireland by Overden and Morgan, and that by Senex in 1711, which may be included with the above. Dr. Madden reprints Charles O'Connor's improved map in his "Lives and Times of the United Irishmen. 2nd series."

John Rocque prepared some county maps, which we will notice hereafter. He appears to have come into Ireland about 1752, and to have learned his profession under Cassini (James), the astronomer. Cassini, like his father, John Dominic Cassini, enriched science by many important discoveries. In 1720 James Cassini published a book in opposition to the theory of Newton, maintaining that the figure of the earth was an oblong spheroid. Cassini's doctrine held sway for a short while, until the French king sent out two companies of mathematicians, one to the equator and the other to the north pole, to measure a degree. The result, of course, was a refutation of the "oblong spheroid" theory. Nevertheless Cassini was a valuable member of society; he died in 1756. John Rocque, his pupil, founded an Irish class of surveyors and valuers, which had their representatives in Ireland down to our own times. From the beginning of the present century or previous, to a period subsequent to the commencement of the trigonometrical survey, this school of surveyors were represented in Dublin by Messrs. Brassington and Sherrard.

In 1802 Hely Dutton, in his "Observations on Mr. Archer's Statistical Survey of the County of Dublin," laments the want of a proper map and survey of the county, and considered it not a little extraordinary that no map of the county was published since Rocque's, in 1762. He writes—"If Messrs. Sherrard and Brassington could be prevailed on to undertake it, we should have every reason to expect these hints would be observed, as their maps possess uncommon accuracy, and elegance of execution." Mr. Dutton's hints or suggestions were, that a scale sufficiently large should be adopted to mark gentlemen's seats, "and even every farm, if possible, and all the bye-roads, as it would be the means of suggesting many communications and improvements that are greatly wanting." He added, that if sections of the ground and levels were added to the maps, they would make them more extensively useful.

About the same period Mr. Sherrard sent proposals to the Grand Jury, and also a Mr. James Lynch, Professor of Natural and Experimental Philosophy to the Dublin Society, proposing to undertake the work. The work does not appear to have been undertaken by the above gentleman, but in 1821 a survey of the County Dublin was made by Mr. William Duncan, principal draughtsman to the Quartermaster-General of Ireland, on a scale of three inches to one mile, and it was constructed on trigonometrical principles.

The Hiberno-Franco school of surveyors did not possess much science, although their work in general appears to have been very respectably executed. In carrying out their surveys, they only made use of the circumferentor, chain, and level.

We must defer to another paper an account of the county maps of Ireland and some coast charts and other information bearing upon the execution of the recent Ordnance surveys, and the methods that have been employed in the production and reproduction of plans, maps, and copies of historical documents.

DUBLINIENSIS.

NOTES ON THE ECCLESIASTICAL ARCHITECTURE OF IRELAND.

BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A. SCOT.

MONA INCHA.

THESE interesting remains are situated in the County Tipperary, and within three miles of the town of Roscrea, in the parish of Corbally. As the name indicates, it is, or rather was, an island in the centre of a bog, which, having been drained in the present century, is now good and profitable land, and Monaincha has ceased to be an island. It has also been named Inis na m'Beo, i.e., *Insula Viventium*, a superstition having existed in remote ages that no person could die on the island, such was its reputation for sanctity. In the *Annals of the Four Masters* it is named Inis-Locha-Cre. Our earliest record of this place is in connection with St. Columba, under whose invocation an abbey for monks of the old Culdean order was founded, and whose festival was formerly celebrated there on the 15th June. According to Allemande, its founder was St. Dorcan, in the seventh century. It subsequently became a priory of the Regular Canons of St. Augustine, dedicated to the B. V. Mary and St. Hilary, at what precise period I have not been able to ascertain. In the *Ulster Annals* we have recorded the death of "*Elarius ancorita et scriba Locha Crea*," under A.D. 806. In the *Annals of Clonmacnoise* he is named Hilarius, and his death noted at A.D. 804. According to O'Clerey's Calendar his festival was observed in this place on the 7th September; his death is also recorded by the *Four Masters* at A.D. 802, recte 807, where he is designated as "*Elarius, anchorite and scribe of Loch-Crea*."

In A.D. 921 the Danes of Limerick attacked and plundered this place, and carried off as a prisoner Flaherty, son of Inmainen—(*Four Masters*). The same authority gives us, at A.D. 1119, the death of Fearghal of the island of Loch-Cre, a "venerable senior and a select soldier of Christ"; and at 1138, the death of Malepatrick O'Drugain, chief lector of Armagh, while on a pilgrimage to this place. The annalist styles him "paragon of the wisdom of the Irish" and "head of council of the West of Europe in piety and devotion," and at 1143 the death of Macraith O'Fidan, head of the island of Loch-Cre.

Giraldus Cambrensis, who came to Ireland in 1185, as preceptor and secretary to King John, then Earl of Morton, mentions this place in the following terms:—"In North Munster is a lake containing two isles: in the greater is a church of the ancient religion; and in the lesser, a chapel, wherein a few monks called Culdees devoutly serve God. In the greater, no woman or any animal of the feminine gender, ever enters but it im-

mediately dies. This has been proved by many experiments. In the lesser isle no one can die: hence it is called "*Insula Viventium*," or the island of the living. Often people are afflicted with diseases in it, and are almost in the agonies of death; when all hopes of life are at an end, and that the sick would rather quit the world than lead longer a life of misery, they are put into a little boat and wafted over to the larger isle, where, as soon as they land, they expire—(*Top.* 2, c. 4, p. 716). Archdal, in his *Monasticon Hibernicum*, gives an interesting account of this place, which he appears to have visited, and describes as follows:—"The monastery of Monaincha, situated almost in the centre of the great bog of Monela, in the Barony of Ikerin, and about three miles south-east of Roscrea, was originally an abbey of Culdean monks, under the invocation of St. Columba, whose festival was formerly celebrated here on the 15th of June. The situation chosen by these religious was very singular. The island whereon the monastery is built consists of about two acres of dry ground; all the surrounding parts being a soft morass, scarcely accessible by human feet, and yet, on this isle stands the remains of a beautiful edifice, not large, but constructed in so fine a style, and with such materials as excites our wonder how they could have been transported thither. The length of the church is 44 ft., the width above 18; the arches of the choir and the western portal are semicircular, and adorned with a variety of curious mouldings; the windows were contrasted arches, such as appear over the west entrance to the church of St. Edmundsbury, Suffolk, but they are decaying, and some have fallen down. . . . To the east of the abbey church is a small oratory, but no vestige of monastic dwellings can be found on this isle, save only the abbey and the abbot's room adjoining it, which was over the cellars, and but small."

Some changes have taken place at Monaincha since Archdal wrote—the bog has disappeared, the churches no longer stand on an island, a good dry road leading direct to it. The elevation of this road is on a causeway, and the general contour of the ground evidences, however, that, before the drainage of this locality, the churches must have been all but inaccessible to foot passengers.

Islands have been places of favourite religious resort in all ages, the objects sought being retirement, seclusion from the vulgar eye, the enveloping of the rites and ceremonies of religion with an air of mystery, the tabooing, or making sacred, a certain limited space of ground, surrounded and purified by the cleansing element of water. Hence we find, that among the polished Greeks, certain islands were specially set apart for the worship of certain divinities; thus, Delos was sacred to Apollo, Cythera to Venus, Samos to Juno, Chios to Bacchus, Rhodes to the Sun, Crete to Jupiter. The Hindoos had also their sacred islands, as that of Elephanta, or Salsette, near Bombay. All the islands in the Ganges were held in great veneration; they even formed artificial islands in lakes and ponds, and erected temples thereon. The Egyptians followed the same practice. One of the grandest of their sacred buildings stands on the island of Philæ; they also constructed artificial islands for the erection of their sacred places. Nearchus, the admiral of Alexander the Great, in the account of his voyage, mentions several sacred islands in the Indian Ocean. Dionysius Periegetes, mentions a cluster of islands in the German Ocean, opposite Britain, to which the wives of the Amritæ repaired annually, to celebrate the orgies of Bacchus. The Temple of Hercules was built on an island near Cadiz. The British Druids made Mona, or Anglesea, their sacred isle, as is evident by many passages in the writings of the Welsh bards. We can, indeed, infer as much from the account given by Tacitus of its invasion and conquest by Suetonius Paulinus, the lieutenant of Claudius in Britain.

In Ireland, the veneration for islands prevailed to a remarkable extent; of our coast

islands, the most singular in this respect are Scellig, Valentia, and the Blasquets off the County Kerry; Bishop's Island, County Clare; the Arran Isles, County Galway; Innisboffin, St. MacDara's, Ardoilean, and Innismurray, off the coast of Connaught; Torry, on the northern coast, and Ireland's Eye on the eastern. All the above-named are esteemed sacred, have the remains of ancient churches upon them, and are the subjects of many weird traditions, pagan as well as christian. Certainly the most remarkable among them is Scellig-Michael, so named in old documents. It is situated in the Atlantic, about eleven miles off the coast of Kerry, and is a precipitous conical rock, rising 900 feet above the sea. Here, as far back as the seventh century, a society of ascetic monks fixed themselves. How they contrived to exist is a mystery, as for months together (in winter) the place is inaccessible. It became, however, a place of pilgrimage, and thousands, from all parts of Ireland, flocked thither, deeming it highly meritorious to put even a foot on the island; this custom continued up to the present century. It is curious that St. Michael's Mount in Cornwall, St. Michael's in Brittany, and Scellig-Michael, should have been dedicated to the same saint, and should have serpent or dragon legends connected with them. It is equally curious that these three high places of serpent-worship should be found in Celtic districts. The inland waters of our island are even more remarkable for their sacred islands; thus, at or near the mouth of the Shannon we have Scattery Island (*Innis-Cathaigh*), with its seven churches, Round Tower, and curious serpent legends, also a place of pilgrimage. Higher up, at Killaloe, we find St. Molua's Island, with its stone-roofed church and Patrician legends. Higher up again we have Inniscaltra, with its seven churches and Round Tower, also a place of pilgrimage. In the enlargements of the same river, above Athlone, named Loch Bo-Finne and Lough Bo-Dearg, *i.e.*, the Lake of the White and Red Cow, as well as in Lough Righ (the King's Lake), and Lough Key, we find numerous sacred islands containing remains of churches, and rich in curious traditions. Lough Derg, with its sacred island, a world-renowned place of pilgrimage from the earliest ages, to which devotees from all parts of the continent came, and of which an account was written by Raymond, Count de Perrillaux, a knight of Rhodes, who came thither on a pilgrimage in 1396. Loughs Neagh, Erne, Corrib, Mask, and the Lakes of Killarney, all have their sacred islands: in fact there is scarcely a river or lake island in the country on which we will not find traces of this sacred appropriation, either in pagan or christian remains, or in the traditions of the people.

The island of Innis Cathaigh, in the Shannon, opposite Kilrush, is remarkable for the number of curious traditions connected with it. I have already alluded to its churches and Round Tower. St. Senan, who lived in the fifth century, appears to have been the patron saint of this island. Tradition states that previous to his time it was infested by a *piast*, a serpent or dragon, that swam across to the mainland, and devastated the country, destroying not only flocks and herds, but human beings also. Our saint boldly crossed over to the stronghold of the dreaded animal, exorcised and drove him out of the island, far away into the Atlantic, and he was never more heard of. This remarkable feat is commemorated by a stone, on one side of which is inscribed directions to pilgrims for the giving of their rounds; and on the other, a figure of St. Senan, driving before him a nondescript animal covered with scales, having a double-forked tail and serrated back, the saint being armed with an instrument like a trident, under which is the following:—"St. Synan and the angel casting out the amphibious beast out of the blessed island." Our saint, when he got rid of the *piast*, erected a monastery and filled it with monks; but made a strict rule, that none of womankind should be allowed to set foot on

the sacred isle. This tradition is commemorated by Moore in his well-known Irish Melody of "St. Senanus and the Lady." This connection between the woman and the serpent is remarkable. The entire legend refers, beyond doubt, to the existence of serpent-worship in Ireland. The island was doubtless a seat of that worship which was overthrown by the preaching of St. Senan. In the serpent Cultus of the old world, the women took a remarkable part, as they affected that particular worship, and were the principal devotees at the temples, hence probably the anxiety of our saint to prevent them from continuing their resort to an island so identified with their former superstitions. In Isenberg and Krapf's account of Abyssinia, we have a most remarkable coincident account of sacred lakes and islands in that country. A native priest of Shoa informed them that lakes were the residences of evil spirits; that in the province of Mansa is a holy well that could only be used on the anniversary of its patron saint, as there is a serpent in it which would destroy the intruder (p. 412). In the lake of Haik is a sacred island, called in the Amhara language the Hill of Thunder, on which is a convent. No woman is allowed to set foot on the island; the wives of the monks reside on the mainland; no bird, or animal, is allowed to be killed on it. Tradition asserts that it was, in ancient times, inhabited by a serpent who was worshipped by the people of the surrounding country, until Abuna Salama Quasiab converted the inhabitants to Christianity. In all probability the worship of the serpent continued for some time, as it is stated, that Abuna Yasoos (who came 400 years afterwards) blessed the lake and island, expelling all the evil spirits who dwelt there, and who took to flight and established their residence in Lake Ardbibo.—(*Ibid.*)

Another remarkable coincidence between Gaelic and ancient eastern traditions is to be found in connection with the River Lee, the source of which is in a small mountain lake called Gougane Barra; a serpent, whose lair was in this lake, infested all the neighbouring country. St. Fin Barr, who founded his first church at Cork, having heard of the evils inflicted on the people, proceeded to their deliverance, and, engaging with him in a severe conflict, put him to flight; the *piast* rushing out of the lake, made towards the sea the nearest direction, which he reached at the harbour of Cork, cutting through the country as he passed, a trench, which is now the River Lee. The same legend exists respecting the Ase (a river of Asia Minor), anciently named the Orontes. This river rises in Cælo-Syria, and, passing through the districts of Apamea and Antioch, falls into the sea near Seleucia, a part of its course being underground. According to Strabo, the ancient name of the river had been Typhon. He states, that in his day a tradition existed, that Arimes being in conflict with Typhon the serpent, defeated him, and that the latter, in his frantic efforts to escape, furrowed the ground, and so formed the bed of the river.—(*Strabo*, b. xvi., c. 2.)

That Monaincha had been a favourite retreat of the priesthood in pagan times, is highly probable; the lonely islet in the lake, embosomed in dense woods, is just the spot suited to gloomy rites, and to impressing on the minds of the votaries a superstitious awe and reverence suitable to the purposes of priestcraft. Though the lake no longer exists, the place has a remarkably lonely and secluded aspect, that at once impresses the mind of the visitor, and induces an undefinable feeling of quietude and awe.

The only ecclesiastical remains now existing at this place are the ruins of a Romanesque church. It stands nearly in the centre of a raised piece of ground of an irregularly circular form, from 80 to 90 feet diameter, and is enclosed by a rubble stone-fence from 4 to 5 ft. high, the internal ground being level with the top of fence. The proprietor has caused a wooden gate and stone steps to

be placed at the west side, for the convenience of visitors. The church consists of a nave and chancel; the masonry is of a superior class of rubble, the stones large, hammer-dressed, and not many spawls used; the material is of a reddish gray grit-stone found at Ballaghmore, about two miles distant. The nave measures 32 ft. 9 in. by 16 ft. 8 in. clear of walls, which are 2 ft. 8 in. thick, averaging from 11 to 12 ft. in height. The entrance is at the west end by a very fine doorway, of a size unusual in churches of the size and period, being 4 ft. 3 in. wide, clear of inside jambs, and 7 ft. 3 in. high to spring of arches. The jambs are vertical, and consist of three piers, the external one semi-hexagonal, the next square with a bold torus on the angle, the inside square. The impost was a square and chamfer, now nearly worn away. The fronts of the piers, as also the sides, were richly decorated, with incised ornamentation, now so much defaced as to be difficult to describe. The arch members were also richly carved on the fronts and soffets, but are now much defaced; the whole was crowned by a bold label moulding also carved. The character of the ornamentation is of a pure Romanesque type, and has not those distinctively native features found in other examples. This fine doorway has been much injured. Since my first visit—in 1851—most of the stones of the inner pier of the left-hand jamb have been broken away, I should say deliberately. Over the west doorway, near the apex of the gable, is a small window-ope with an angular head. The nave was lighted by three windows at the south side; two of these form a couplet, the centre pier of which (internally) is finished by a light double shaft, and the arrises of the jambs by single ones; the heads of these opes are gone. The third ope is nearer the east end of nave, and is only 2 ft. 6 in. high, and 7 in. wide externally, with large inward splays. The jambs and arched heads are very carefully built, but the character of the ope is quite distinct from that of the other window-opes.

The chancel measures but 9 ft. 2 in. from west to east, and 8 ft. 2 in. from north to south. Its arch is a most interesting feature; it measures 11 ft. 6 in. from out to out of pillars, and 13 ft. 6 in. to top of outside arch member. There are three columns on each pier, having double plinths and moulded bases. The bells of the capitals are cone fluted, as in most Norman examples. These pillars are remarkably well proportioned in all their members. The arches are enriched both on the front faces and soffets, and the back of the inside arch member is also enriched. The ornamentation consists of chevrons, plain and enriched; triangular panels filled with foliated ornaments; lozenge panels enriched with pellets, &c.; the entire has a very chaste and pleasing appearance, and is one of the purest specimens of Norman work I have seen. The east window was a single light of the same character as those described in nave; it was 2 ft. 6 in. wide externally, and 5 ft. 2 in. internally; it was moulded on the external reveals, and internally had slight shafts, with human heads for capitals. In the south wall is a very small window-ope, measuring 2 ft. in height, and 5 in. in width externally, having large inside splays; it is semicircular-headed, the masonry of similar character to the small window in nave already described. There is an internal string under the window-sill, resting upon which is a square recess at each side, 12 in. by 12 in. and 9 in. deep; there is no piscina either in nave or chancel. The string-course, which is 4 in. thick and an ovola in section, does not continue round the other sides; it appears as if it had been cut away at the east end, to make room for the sill of the present window.

At the north side of the nave towards the east end, is a pointed door-ope, leading into the sacristy through a small vestibule. The former is a low apartment covered by a pointed vault springing about 2½ ft. from the ground; it is 20 ft. 6 in. from north to south, and 13 ft. 8 in. from east to west in clear of

walls, and is lighted by two rectangular slits in flank walls, and a larger one in north gable. The marks of the twigs used in centering are still quite fresh on the soffit of the arch. At the left hand side of the porch is a flight of steps which led to an apartment over the sacristy, but which no longer exists; this portion of the building is usually called the abbot's lodgings. In the left hand jamb of the doorway leading to the sacristy, will be found some pieces of ancient carved work, built in as jamb stones. The quoins of the east gable were finished with three-quarter attached shafts, as found at Tomgraney, Ardfert, and other places, but most of the stones have been torn out, evidently by design.

A careful examination of this interesting little edifice has led me to the conclusion, that the fabric of the building is older than either the door-ope or chancel arch. The south-west quoin of the nave retains a portion of an ante, now covered up by the ivy, a feature, as I have before shewn, only found in very ancient churches. This, with the quoin shafts of chancel, and the plain diminutive window-opes in nave and chancel, are conclusive evidences that the original church was a plain unornamented edifice of an early date; and that the elaborate entrance and chancel arch, with the windows, were insertions of a later date, the former are certainly not earlier than the twelfth century. I found it impossible to examine the exterior fabric of the edifice with any degree of success; the ivy has so covered the entire building with a mass of matted vegetation, that not a single stone of the exterior is visible. This must eventually cause the destruction of this interesting church; if not looked after in time, it will probably be found some day a heap of rubbish.

The limited area around the building is still used for interments, but none are allowed inside, with the exception of the claimants on two table monuments of modern date. At the south side of the nave stands a portion of a cross of an early type, bearing a half-defaced crucifixion; it is at present fixed in the plinth of what must have been a much larger one. On my second, as on my former visit, I searched for ancient inscriptions, but found none. I was informed that a neighbouring gentleman was in possession of a stone bearing an inscription in Irish characters.

There is now no trace of the Woman's church which was standing at the time Ledwich published his work, neither of a small cell or oratory mentioned by him. I have been informed that the carved door of the Woman's church is to be seen in the demesne of Birchgrove, near Roscrea.

THE WORKS AT HELL GATE, NEW YORK.*

THE great work of removing the rocks at the dangerous pass in the east river, known as Hell Gate, City of New York, is progressing with great vigor. The mining, it will be remembered, is done by running out tunnels, into the rocks under the river, from a vertical shaft located on the shore at the margin of the river. The following recent particulars are from the *Evening Post* :—

The work of removing the obstructions at Hell Gate, which was begun about two years ago, has been vigorously carried forward with but trifling interruption, and will, it is now estimated, be completed within a year and a half. One hundred and sixty-five thousand cubic yards of rock were to be removed from the river, and of this amount at least forty-two thousand cubic yards have already been taken up. About two hundred and forty men are now employed in the work, nearly all of whom are Cornish miners of long experience. A much larger number were formerly employed, but the introduction of the diamond drill, and the increased use of machinery in all branches of the labor, has permitted a great reduction of the working force.

* From the *Scientific American*.

The immense bed of rock is now perforated by sixteen tunnels and seven concentric galleries, the floor line of which is thirty-two feet below the level of the river at mean low tide. It was originally designed to make the channel but twenty-five feet in depth, but subsequently it was determined to render it perfectly safe for vessels of the largest draught. The average height of the tunnels and galleries is twenty-two feet, and their width sixteen, leaving a roof from seven to ten feet thick, supported by numerous pillars. The length of the extreme gallery is six hundred feet, and of the grand tunnel two hundred and twelve feet and a-half. There will ultimately be twenty-eight tunnel headings, some of which will extend three hundred and seventy-five feet.

The work of boring is done wholly by machinery, the labourers serving only to trim and dress the rock after the rougher work has been executed, and to perform the operations connected with blasting. Of the six drills used, two are the diamond-pointed drills and four Burleigh steel percussion drills. The diamond drill is the invention of Rodolphe Leschot, a French engineer, and was first used in the construction of the Mont Cenis Tunnel, but is now worked by improved machinery under American patents. The two used at Hell Gate were introduced last October, and have proved so satisfactory that three more will be added in a few weeks. This drill consists of a hollow steel disk an inch and a half in diameter, the rim of which is studded with twelve bits of black carbon. Attached to an iron pipe of the same thickness, it is propelled by compressed air at a pressure of sixty pounds per square inch, and cuts its way through the hardest rock with marvellous rapidity. The motion is rotary, and the number of revolutions seven hundred and fifty per minute. Unlike percussion drills, it receives no wear except from friction, and hence is constantly in working order, and needs no sharpening.

Fifty-four feet and four inches have been tunnelled by this drill in eight hours, through a mass of granite and quartz. By screwing on additional pieces of pipe, it can be propelled in one direction to an indefinite extent; but for blasting purposes it is seldom driven further than fifteen feet. Occasionally, however, through the intervention of a new process in blasting, it is expedient to continue a tunnel of this character for a long distance, thereby effecting a great saving of time. Sand or clay is then rammed into the bore until it is nearly full, to act as a recoil block to the charge, and the rock is blasted section by section.

All the blasting at Hell Gate is done by nitro-glycerine, and has been so carefully managed that not an accident has yet occurred. The nitro-glycerine is made into cartridges from eight to fifteen inches in length, about an inch in diameter, and holding from four to eight ounces. They are coated with a glutinous composition which effectually protects them from water. When a blast is made, a little tube of fulminate is attached to the cartridge and a spark transmitted to it through a wire connecting with an electric battery. Though a large number of cartridges are often discharged in succession with great rapidity, they are never fired at once, as the vibration in this case might seriously jar the stone roof, opening seams for the admission of the water. The explosions are of tremendous force, shattering the rock into fragments of a size convenient for removal. These are piled on cars drawn by mules, running on iron tracks which are laid in all the tunnels, and conveyed to the shaft, where they are hoisted up by a steam derrick. The masses already taken out form two immense embankments on the river front. A building near the mouth of the shaft contains three large steam boilers and five air compressors, the latter furnishing the motive power for the drills. In working the compressors, lubricating oil is now used instead of water, thereby avoiding the formation of ice in the pipes during severe weather. Near by is a powerful steam pump, which drains

all the tunnels comparatively dry through pipes, radiating from its base. Before blasting, it is necessary to use great care in ascertaining the line of resistance and quality of the rock, which is chiefly composed of granite, quartz, and gneiss. The strata embrace a great variety of minerals, however, including, besides various metallic deposits, veins of decomposed felspar that are as soft as clay. The testing is done with the diamond drill, which in two instances struck sand and water after boring twenty-eight and thirty-four feet respectively, rendering it necessary to abandon blasting in that direction, and to have the bores tightly plugged up. In opening tunnel heading No. 3, a section of rock was struck so full of seams that the water poured through the roof at the rate of six hundred gallons per minute. This was effectually remedied by constructing a massive schilt of timber, oakum, and Roman cement, fourteen feet in length by twelve in width.

The work is carried forward almost constantly night and day, the men being divided into gangs which relieve each other at regular intervals. It is executed under the supervision of Major General John Newton, of the United States Engineer Corps, who planned it from the beginning. The superintendent in immediate charge is G. C. Reitheimer, an engineer of wide experience in various countries, who has devoted himself especially to work of this kind. When the rock is at length completely honeycombed, and nothing remains but the roof, its supporting pillars and the outer walls, it will be mined with seven thousand pounds of nitro-glycerine, which is equal in explosive power to seventy thousand pounds of gunpowder. All the charges will be connected by wires with an electric battery in the office of the superintendent, when, at the given signal, it is confidently expected that the whole vast mass will be blown into atoms, which will be entirely removed from the bed of the river.

SANITARY MATTERS.

THE Corporation, individually and collectively, are so much interested in forthcoming matters of interest of a public nature, and of private matters of more interest to two or three notorious *jobbers*, that the health of the city is again let take care of itself. A few streets, as usual, are brushed over, while the lanes and courts are allowed to fester in filth.

Some complaints have been made about nuisances in the Pembroke Township, which we hope are being attended to, as the weather is growing warm. We would also direct attention to the localities around and inclusive of Beresford-street, Church-street, Mary's-lane, Greek-street, North King-street,—in fact, the whole of that large district bounded by Capel-street on one side, and Oxmantown and Stoneybatter on the other. These localities are seldom or ever attended to. On the South side, between Bride-street and stretching on through the Coombe to Ardee-street, there are numerous streets, lanes, and courts always in a state of chronic filth, and hundreds of the houses stand in need of cleansing and disinfection. The Corporation will, however, not do this needful work until driven to it by legal procedure.

Fever and small-pox are still prevalent in various provincial districts, and in many of these places, as well as in Dublin, the hospital accommodation is insufficient. Cottage hospitals are required, and a prohibition put to drafting infected patients from one district into another. The great evil in many country districts is in the water supply, which in many cases that have lately come under our notice is both foul and filthy, as well as insufficient.

Our sanitary officials of late seem to have altogether relaxed the little vigilance they possessed, and adulterators and dealers in

diseased meat and unsound provisions are "making merry" over their victims. There is another raid required in many quarters of the city on the part of the police as well as the sanitary officers, and the Lord Mayor might bestow an increased attention to matters of light weights and measures.

CIVIC LYRICS.—No. XIV.

OH, FOR A LOAN!

Oh, for a loan, a thumping loan, from Rothschild or the Crown,
To lift the Civic credit up, while putting each nuisance down,
And carry by stealth
Back the public health,
Long banished from the town.

Oh, for a loan, a thumping loan, for fifty long years at least,
With power to renew, again and again, as suits the Civic taste,
Till the city owes
What nobody knows
Of the thousands spent in waste.

Oh, for a loan, a thumping loan, to create Main-drainage blood;
The scheme is lagging for lack of steam, and has been since
the Flood;

And its engineers
Are both in tears,
And are stranded in the mud.

Oh, for a loan, a thumping loan, as the staff are all getting old,
And *entre nous* we must not leave our relations in the cold;
For more than one John
Has a hopeful son
Whom the rates can well uphold.

Oh, for a loan, a thumping loan!—the Mansion House looks dreary
To pay for the "feeds" and feather beds for the foreign cads
this year.

What boots the expense
That two or three pence,
Or more, in the pound will clear?

Oh, for a loan, a thumping loan, that a sanitary spurt
May be made to rid the town of a ton or two of dirt—
For the Hopper Barges
To make discharges
In front of the Pigeon Fort.

Oh, for a loan, a thumping loan, that the Corporation wreck
May be assured, by putting at once a millstone round its neck,
And swamping the Hall,
With its rats, and all
Of its hangers-on elect!

CIVIS.

ARCHITECTURAL ISHMAELS.

WE have for a considerable period been watching the steady growth of a pernicious system of architectural criticism across Channel; it is mostly indulged in by a class of architects, the majority of whom have not been quite successful in the practice of their profession. Some write singly, others have formed themselves into little hole-and-corner coterie for attacks upon the works and characters of their brethren. Monthly magazines are sometimes resorted to, newspapers are at other times availed of, but prominently among the channels used by this class of discontented architects and amateurs is a professional London organ of recent establishment.

We are free to admit that there may be faults on both sides; but why, in the name of rectitude and common sense, do one class of raw and recent critics in the field try to uphold what is radically vicious at the root, and damn with faint praise the labours of veterans in the service. Whether he be a new-fledged architect, whose ideas on art may be as crude as his designs, or a journalistic speculator, who is ready to float any sort of a journal that will pay, it appears to be the set purpose of all combined to create a constituency for themselves, by undermining, if possible, the platform of others by a system of ill-disguised detraction or open and unblushing falsehoods. Separated, as we are, by our insular position from any

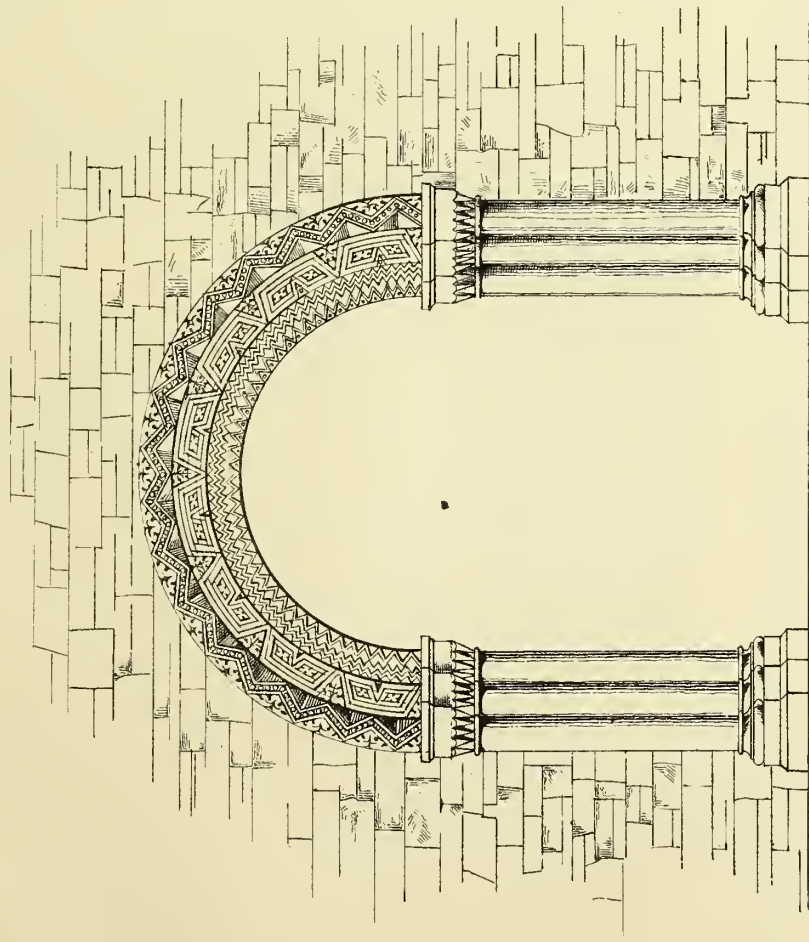
contact with these parties, save what the perusal of their lucubrations afford, we are the more free to express our opinion, and we cannot express it too strongly in condemnation of the dishonourable and ungentlemanly conduct that we are witnessing every other week. It is scarcely necessary to mention any names, for our professional readers this side and on the other side of the Channel will need no index finger.

We would have thought, that if any class of architects needed an organ as a vehicle of their peculiar ideas or as an exposition of their school, they would have founded one on a proper footing, and have allied themselves with conductors who knew how to conduct, and who at least had some knowledge of the profession that they ambitioned to represent. An ordinary newspaper is exceptional, but a professional journal needs a different organization of talent; and if it lacks this combination, it is only a make-believe, and all the tinfoil and gold leaf it can command for outside appearances will not give it a status.

This aside, why should architects, because one represents the Classic and the other the Gothic school, or because one is Mediæval and the other anti-Mediæval, be always at war with each other? Is it not possible to agree to differ, and while honestly differing, honestly criticise each other's performances? The new Law Courts, the National Gallery, the new Post office, the completion of St. Paul's, and other architectural works, have given rise to much criticism, some of which is honest enough, while the greater portion is very unfair. One side meets the objections of the other side either by foul abuse or fulsome praise. Let us take the case of the Law Courts. Here most have agreed that there are matters which are objectionable from artistic standpoints, and even in arrangement. Yet there is a little coterie who cannot and will not acknowledge there is anything wrong, and the criticisms and encomiums of this school remind us of the testimonials of the "Mutual Admiration Society."

Again, in the case of St. Paul's, one class will not admit that Mr. Burges can do wrong, and that there is nothing *outré*, or far-fetched, or even out of place in the basis he proposes for the ornamentation of St. Paul's. There are none but will acknowledge that Mr. Burges possesses capacity as an architect, but there are hundreds who honestly dispute that the plan or the prospectus that he has submitted is the right one for adoption in completing Sir Christopher Wren's work. The "Cinque-cento style" can be made very elastic, and so can Byzantine ornamentation, which, though admissible to a certain extent in St. Paul's, it needs to be introduced with judgment—the judgment which can only be exercised by a combination of professional talent, of men who are true artists, as well as architects, painters and sculptors severally. Mere dilettantism, or playing with the arts, has ruined many reputations, and many edifices which might have become models for future times. This mischievous playing at art is a modern curse, and where two or three, or half-a-dozen, have gathered together under its ægis, their council smells of jobbery, injustice, and dry rot. Idealities are nursed to the exclusion of realities, and an architectural Utopia is projected into a mushroom life to die a mushroom death.

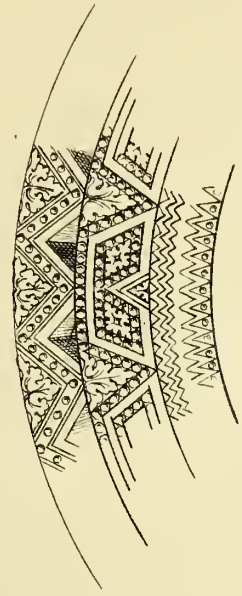
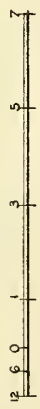
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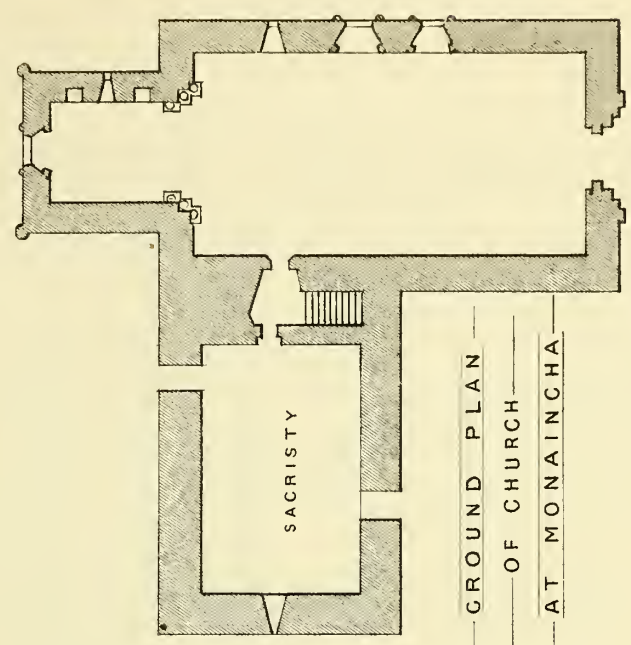
ELEVATION
OF
CHANCEL ARCH.



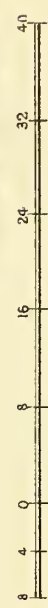
PLAN



PORTION
OF
CHANCEL ARCH
ENLARGED



GROUND PLAN
OF CHURCH
AT MONAINCHA



THE LIBRARY
OF THE
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The sequel of Architectural Ishmaelism will be individual as well as collective injustice; the Ishmaelites who now hang together by a very slight bond will drop asunder in a short time, for the system is antagonistic to itself. As soon as the bilious period of attack is over, the disintegration of the composing particles will take place, and the motto of the rabid school will be, "Every man for himself." Like the younger Pugin, they will pitch in antagonistically, but, unlike that Ishmael, they will not be able individually to carve out a field of operation singly for themselves, but will gradually perish of inanition. Pugin is undoubtedly an Ishmael, and he can handle the pen as well as the compasses and the T-square with some effect. Of him, however, it may be said, as of Byron's Hunchback, in reply to his mother's taunt anent his deformity, "I was born so, mother." The elder Pugin was also somewhat of an architectural Ishmael, but he had sufficient compensating genius to redeem him and entitle him to a lasting recognition, despite of his faults and frailties. Not so with the carping critics of the new school—the old maids of rejected competition, whose tempers are soured by sore disappointments. They must meet as long as they can for consultation and scandal-mongering, and some of them who possess a *cavæthes scribendi* indulge in their favourite pastime when they have got nothing to draw.

We trust that a kindly notice will lead to a little reform, and that a class of architects who profess themselves to be English gentlemen will learn to tell the truth in all things. We do not want "smart" articles for purposes of mere opposition or fulsome praise, for the sake of giving praise alone; and whether a man writes over his name or without a name, it is equally reprehensible to be guilty of ventilating fallacies. If architects cannot build up a reputation for themselves, without endeavouring to tarnish the well-borne and well-deserved honours of their professional brethren, they had better retire to more congenial vocations among the trading community, where a strict adherence to the truth is not an indispensable qualification for doing a roaring business.

E.

THE LONDON SCHOOL BOARD DESIGNS.

THE competitive designs for several of the metropolitan schools of the London School Board were on view for a couple of days in London. The designs are by different architects, and are in most cases in accordance with conditions laid down by the Board. The schools to consist of three departments—boys, girls, infants. The infant school to have, besides the general school-room, two class-rooms for 40 children each, the boys' and girls' departments being subdivided into senior and junior, each having a general space for the assemblage of the whole department at one time, the allowance being not less than four feet superficial for each child. Each of the graded schools also to have two class-rooms for forty pupils, capable of being thrown into one. These class-rooms to be not less than 360 feet, and in height not under twelve feet. An additional room to be given to each school, provided with top-light suitable for a drawing-class, and available alternately for boys and girls. Each of the departments to have a separate cap and bonnet room and lavatories; but the out-offices, approached if practicable by covered ways, and the playgrounds are to be divided simply for boys,

girls, and infants. Provision to be further made for a master's or mistress's room for each department, and also a caretaker's residence of two rooms. The building to be not less than two nor more than three storeys in elevation.

We adopt the enumeration of a daily contemporary in London, who favours the public with a long report, which we believe to be very faulty in some respects, as well as biased in its criticism of the designs. We have reason to know that the substance of this report came from other hands than a member of the reporting staff of the paper, but perhaps it does not matter much.

The architects who have competed, with the estimates of their works, are:—For the Essex-street School, Mr. Charles Barry, 320,141 cubic feet, £5,630; Mr. G. T. L. Banks, 312,684 cubic feet, £7,000; Mr. T. S. Quilter, 217,800 cubic feet, £5,500; Mr. J. Young, 376,379 cubic feet, £7,845; Mr. Josh. James, 342,257 cubic feet, £8,000; Mr. A. C. Hennell, 247,574 cubic feet, £4,850. For the Hatcham School, Mr. J. P. Seddon, 222,070 cubic feet, £7,902; Mr. Josh. Gale, 245,658 cubic feet, £5,521; Mr. John Giles, 303,128 cubic feet, £5,400; Mr. E. W. Tarn, 266,500 cubic feet, £6,000. For the Bromley School, Mr. L. W. Ridge, £5,500; Messrs. Slater and Carpenter, £6,746; Mr. J. W. Morris, 292,239 cubic feet, £6,371; Messrs. Mileham and Kennedy, 293,640 cubic feet, £6,800; Mr. T. H. Watson, £4,900. The Bow Common School, Mr. E. Bracebridge, 368,000 cubic feet, £8,200; Mr. A. Porter, 338,000 cubic feet, £5,950; Mr. Alfred Williams, Mr. R. Phene Spiers, associated with Mr. H. Hall, 333,614 cubic feet, £8,450; Messrs. Spalding and Knight, 376,509 cubic feet, £7,900. For the Battersea School, Mr. Gordon Stanham, cost £7,250; Messrs. Toulon and Cronk, space covered 254,314 cubic feet, cost £7,000; Mr. W. G. Coldwell, 240,000 cubic feet, £5,850; Mr. R. W. Edis, 280,000 cubic feet, £6,520; Mr. J. Toner, 254,580 cubic feet, £6,200. For the Old Castle-street School, Mr. T. W. Aldwinckle, £7,630, including bath; Mr. Edw. Biven, A plan, 390,000 cubic feet covered, £7,870; B plan, 336,000, £6,952; Messrs. Tarring and Son, £8,500; Messrs. Habershon and Brock, 350,129 cubic feet, £6,750; Mr. Edw. Robins, 380,000, independent of 45,000 for bath, total cost £8,500.

Our daily contemporary awards the palm to the design of Mr. Aldwinckle, and sets against him as a "formidable competitor" Mr. Biven. Mr. Edis's elevation for the Battersea School is praised for its excellent architectural drawing, and Mr. Stanham's design for the frontage is accounted "as a little bit of real good water-colour painting." Mr. Gale, we are told, produced a handsome elevation, with picturesque characteristics, through the disposition of parts and a general introduction of gables. Mr. Charles Barry's design for the Essex-street School, which is a three-storied edifice, seems not to please the critic of our contemporary. "It is massive and fine in appearance, but the round-headed windows with quatrefoil seems unsuited for the good lighting of the school-room." Mr. Quilter's design is spoken approvingly of for its details and arrangements, and Mr. Hennell's is pronounced "one of the finest and boldest for this district" (Essex-street). Mr. Phene Spiers's is thought a trifle too heavy, though it is "nevertheless picturesque and handsome"; and lastly, Messrs. Spalding and Knight are credited with having produced a good design. Our daily contemporary leaves all the other architects out in the cold.

Mr. Aldwinckle's designs may or may not be masterpieces, and, for aught we know, may be selected. We deprecate, however, one-sided criticism, and any and every attempt made on the part of the daily press to prejudice the public mind; and we are particularly opposed to this kind of work when we find that methods have been devised to render the public exhibition of the designs only a public exhibition in name.

The designs should have been kept on

exhibition for several days, and the rate-payers of the metropolis should have been afforded every facility for seeing them. We dislike and heartily detest these hole-and-corner peep shows in top rooms into which architects' designs and plans are huddled, without due public notice or a note of invitation to the conductors of professional journals to send a representative.

The six schools for which designs have been sent in will cost some £50,000, exclusive of the cost of land. This outlay in itself is a matter of great importance to the ratepayers, who will have to contribute hereafter to the support of these schools, and it affords very cogent reasons for affording the fullest publicity to every matter connected with the design, construction, and carrying out of the work. The establishment of school boards throughout the sister kingdom was a wise scheme and an educational necessity. Neither in London, however, or elsewhere should these boards be allowed to drift away from being amenable to the public will. If not watched, many of them grow up with all the faults of local boards and parish vestries. Bad examples in connection may possibly lead to bad examples in communion, and thorough publicity is the only check by which they can be prevented.

PASSAGES FROM AN UNDELIVERED ODE.

Hail! goddess Erin, ægis of my ode,
I'm bursting with my theme, and must explode.
Around thy brow my chaplet wreath I twine;
It is now yours, but what is yours is mine,
For I have woo'd and wed thee, and have won
A foremost place as your most gifted son.

To-day a bright galaxy from afar
Have come to open our brand new Bazaar—
Ladies and lovers, brilliant and well dressed,
And sprigs of Royalty, to lend a zest.
What more is needed here to give a lift
(The flame of Waller with the glow of Swift)?
The gentle Spenser, could he view this scene,
Would celebrate it in his Fairy Queen!
Oh, happy thought, 'tis still a source of joy,
Another Spencer lives in our Viceroy,
Who boasts a genius and a wit refined,
Which proves how matter must give way to mind.
Dear shade of our great native minstrel Moore—
Whose songs must last while language can endure—
Were you alive this bright and glorious hour,
Your wit would sparkle round us in a shower!
Alas! too full of thought am I to speak—
The spirit's willing, but the fancy's weak.
Content, like Gold-mith, were I steeped in woe,
I'd rather pipe my lay by Scheldt or Po
Than prostitute my muse for playhouse bills
(Or puffing Cockle's Antibilious Pills).

Forgive this slight digression of the bard,
Who courts your favour and your kind regard.
Your Cicero here to-day he'll act,
And lead you on through fiction unto fact—
From fields of art within to walks without,
Where grottos rise, and fountains through a spout
Cast up their waters like a crystal wall,
Eclipsing great Niagara waterfall.
Let praise be given to the architect,
With skill to plan and judgment to direct;
And, though lost not least, while each sight we scan,
We've need to thank the skillful artisan:
Come from where he may, 'tis still the same—
We're brothers-all, for—"What is in a name?"

Although this structure had been whilom raised,
It now is decorated and well glazed,
And stored with art and manufactures rare,
Arranged with taste and deft artistic care.
Pass your eye along through Lendstore Hall:
The "Loan Collection," though it is rather small,
'Tis chaste, and that is better than if full
Of the "Old Masters," who are often dull.
I need not name the list that's there on view,
For 'neath the sun, they say, there's nothing new.
The senders' names are on the backs inscribed;
Their worth is better thought of than described.

But, ere I close this rather long prologue,
Excuse if I show I've got the brogue.
Cad mille failthe, let the chorus be;
From this day dates our isle's prosperity.
Au revoir, the bard now bows farewell
(His feelings no one but himself can tell).

Trinity College.

SPONTANEOUS.

[Our half-in-earnest and whole-in-humour friend "Stonybatter" should have mounted his Pegasus in another direction. However, as he is one of those free-and-easy individuals, like many of his countrymen, who are ready to cut a man's head for the purpose of obliging him with a plaster, we suppose we must let him ride his hobby. He evidently says less than what he means, or means a good deal more than what he says, if we are to judge from his fondness in dealing in asterisks.]

CONTROLLABLE GUN-COTTON FOR MILITARY AND MINING PURPOSES.

SOME experiments, of a very satisfactory kind, are being made to test how far gun-cotton can be used with safety for fire-arms, and blasting and mining purposes. From these experiments we have every hope that gun-cotton will soon be extensively used. One of the requisites is to render gun-cotton perfectly controllable, no matter in what way it may be used, whether for sporting or military rifles, or for mining operations. It is thought that from the recent experiments with the material known as the new cotton gunpowder, the title given to the gun-cotton, the invention of Mr. Punshon, great results may soon be anticipated. From a description given in a London daily journal, we subjoin a short summary of the particulars in relation to Mr. Punshon's new explosive material:—

Experience has shown the impossibility of firing gun-cotton charges of the ordinary or other previous makes in the chamber of a gun without at least considerable risk in small arms and almost certainty of destruction in artillery. The attempts hitherto have been mainly confined to mixing the explosive material with silicates, common cotton, or other inert matter, in the hope thereby to effect a mechanical retardation of the explosion, but nothing had proved reliable until Mr. Punshon conceived the felicitous and scientific idea of coating the minute particles of gun-cotton with films of sugar. In this way, by the interposition of thin envelopes of that combustible substance the act of explosion is extended over a greater period of time, proportionate to the thickness of the coatings the particles have received, and which may vary from 20 to 90 per cent. in the retarding direction, giving the extent of control a long and efficient range, capable of including a great variety of applications. This controllability, indeed, and the uniformity of power developed by like charges which the intermixture of sugar secures, cannot be too highly regarded, and they are qualifications which in all the recent repeated experiments at Wormwood Scrubs and at Wimbledon have been thoroughly demonstrated.

The first public trial of Mr. Punshon's gun-cotton was made at the National Rifle Association meeting in July, 1870, when two or three shots were fired from a service rifle at 500 yards range by Lord Elcho, in the presence of Lord Cloncurry, the Hon. Lieutenant-Colonel Colville, and many others. In October that year, Mr. Punshon's gun-cotton was experimentally tried at Woolwich, at the request of the inventor, by the committee on explosives, when its safety for service in small arms was sufficiently evinced, charges of 60 grains being employed, and proving more than equivalent to 100 grains of Curtis and Harvey's No. 6 rifle gunpowder. From this point dates the affirmation that bullets can be propelled from a rifle without danger. In March, 1871, Punshon's gun-cotton was again before the committee, when a flatter trajectory was obtained from 50 grains of that explosive than from 85 grains of the above gunpowder. There was also shown on that occasion a great improvement in the uniformity. In July last year Mr. Punshon produced at the great annual Wimbledon meeting his latest improvement, in which he had completely satisfied all the points which his ablest predecessors had so earnestly striven to accomplish. On that occasion a number of rounds—some 200 or 300, at ranges varying from 200 to 800 yards, amply sufficient to show that the desideratum of uniformity of shooting had at length been definitely attained—were successfully fired, this being indeed the first instance in which irregularity of performance had not been a constant characteristic of gun-cotton charges. We may further note that this was also the first instance of gun-cotton charges being permitted in the prize contests, and it will be interesting to give the score made by Mr. Punshon in the "Bass" competition on that occasion, namely, at 200 yards, five bulls' eyes, nine centres, and two outers, a total of sixteen shots fired in two minutes.

The article then produced is identical with that now about to be put into the market, and as the samples hitherto used were hand-made, the certainty of uniformity will become still more assured when the manufacture is conducted, as it will be, on the grandest scale and with the finest machinery, under the management of the inventor himself—a chemist of mature experience—who will thus not only have the utmost interest in the perfection of the cotton powder, but the direct responsibility of its production. The manufacture of Punshon's cotton gunpowder will, being carried on in a wet state, be absolutely safe in all stages up to drying, from

which point of manufacture ordinary and all previous sorts of gun-cotton have become liable to accidental combustion or explosion. The sugar, however, exerts two beneficial influences at least in the drying process. In the first place, it hardens the pyroxilin, making it, therefore, more difficult to ignite; and it also confines all loose fibres within the solid substance of the material, thus obviating the most common and fruitful source of inflammation of the gun-cotton on the drying-trays. The question of safe storage appears also to be largely advanced, if not, indeed, completely settled, by the preservative action which the saccharine films exert over the particles of gun-cotton they hermetically envelop. We say appears, because it is obvious that lightly-made assertions in respect of any explosive would be highly reprehensible; and nothing but time and full experience can enable this point to be absolutely stated. Not only, however, should this desirable result be both mechanically and chemically inferential, but the fact that Mr. Punshon has kept samples unchanged for three years is a direct and valuable evidence, although we are not at all inclined to lay much stress on the testimony afforded by hand specimens. There can be no doubt, however, that the question of safe storage will be dealt with by the company, whose formation will probably be announced in a few days, in the most practical manner, and that nothing will be omitted, either in the manipulation, in the structure of the magazines, or in the mode of packing, which can possibly conduce to the utmost safety of the new cotton gunpowder in its dry state in bulk.

For mining and blasting operations we are assured it will be the cheapest explosive as yet offered in trade, considering its force and efficiency, whilst the ability which the manufacturer has of modifying its power to suit the requirements of customers for the particular work to be done will give this article a far wider range of application than ordinary gun-cotton could possibly have. Its immunity from deterioration of strength by reason of absorption of moisture is also a valuable characteristic, especially in view of military and sporting uses, and for which, sooner or later, if the cotton powder maintains its good character, it must be very widely, if not indeed universally adopted, for it is impossible to ignore the fact that better and harder hitting, with a much flatter trajectory, can be obtained with charges of half the weight of gunpowder, thereby permitting a considerably increased number of cartridges to be carried by the soldier. Moreover, in view of its being the only explosive as yet capable of giving longer range to bullets than gunpowder, without endangering the weapon from which it is discharged, one cannot avoid looking to future hopeful attempts to apply it to the propulsion of heavy shot and shell from artillery of the largest calibres. This, however, is a vision of accomplishments to come.

Without subscribing to all that has been said in favour of the new material in a controllable form, still we think that it could be used with great advantage in mining and quarrying. Caution, of course, is required, but caution is indispensable with all explosive materials.

We are still behind the age in expeditious methods of blasting and quarrying; and it is our duty on all sides to give ear and encouragement to all new materials and methods that may be introduced by practical and scientific men. Let us test them well as to safety and power before we either cast them aside or adopt them.

ASPHALTE PAVEMENTS.

WE have, on former occasions, given detailed accounts of the different asphalté material before the public; also the report of the Engineer of the London Corporation, on the respective merits and advantages of each. Several experiments are at present taking place in London, and portions of streets are laid with different asphalté material, with a view to test the merits and durability of each. A discussion took place some days ago before the Streets Committee in the Guildhall, and the engineer was again asked his opinion in respect to the work performed by two or three of the companies now engaged in laying asphalté in London. The following reply was elicited:—

The engineer (Mr. Haywood). Well, I really feel great difficulty in giving the commission any opinion I should esteem of great value on the point. If you notice in the report you have referred to (I suppose you mean my large report on asphalté), I state that I incline to the belief (I put it in that

shape) of the French engineers, that the asphalté which are laid down in the shape of compressed powder will be the most durable, and I still incline to that belief generally. At the same time, as I have told the commission, the Limmer, in Lombard-street has shown far less signs of wear than I expected it would. The marks which were made by the traffic, under the influence of the heat, which occurred directly after it was laid down, are still there, but it has, in no respect, led to the deterioration of the pavement there. The asphalté laid by the Limmer in Moorgate is still in an admirable condition of surface. Bear in mind that it is the most smooth of any pavement in the city. Next to it comes the asphalté of Mr. Barnett, but I still hold to the general opinion, that the asphalté which will be the most durable will be compressed, if done with the natural rock and in the best manner. The Limmer will have greater durability than, in my own mind, I attributed to it. In condition of surface it is probably the best. With that laid there are no signs of wear, so far as I can discover. There are two or three companies about to lay compressed asphalté.

As it may be interesting to our readers and the ratepayers of this city, we subjoin the discussion that followed the engineer's statement, and the further remarks of Mr. Haywood:—

Mr. Hora—Has it been necessary to repair often the asphalté laid down in Cheapside?

The Engineer—As far as I know, the asphalté in Cheapside has been repaired once or twice next to Newgate-street, and once or twice at the corner of the Mansion House, owing, no doubt, to the friction of not only the rolling of the traffic, but the twisting round of the wheels there, to go down Queen Victoria-street.

Mr. Hora—Has there been any repairing of the Limmer asphalté in Lombard-street.

The Engineer—There have been no repairs in Lombard-street that I am aware of, excepting what was done directly after the opening, and at my request, because it had softened in that spot.

Mr. Pedler—Are we not doing an injustice, after the report of the surveyor as to the superiority of the Limmer, in selecting a number of streets consecutively to be paved with another asphalté, which has been complained of, and set aside a paving which has not been complained of.

The Chairman—Look at the price.

Mr. Pedler—Well, it is a fact that it is the same in both instances?

The Chairman—No, the price makes a difference of more than £5,000.

Mr. Cotton—And possibly be £10,000 waste.

Mr. Deputy Burnell remarked that the asphalté laid in Threadneedle-street had departed from the level line of the curb; he asked whether the term of trial could not be extended to three years.

The Chairman—The specifications are all out, and we have tenders sent in in answer to them. It would be awkward to make an alteration now.

The Engineer, in answer to a question, said the time of trial had not been limited, and he added that if extended to three years, the price put on the first cost of the asphalté, no doubt, would be increased.

Mr. Hora—I should like to say that, as a member of the Streets Committee, I found myself placed in a great difficulty when the question was before me what asphalté we should recommend to the commission with which to pave these streets; for, although our engineer has stated his opinion that those asphaltés that are laid in a compressed state will answer and be more durable than others, I for one, took on myself to express a different opinion; and, I think, experience has shown that those asphaltés which have been laid down in a liquid state are more elastic, more durable, and less slippery than those put down in a compressed state; and, beyond all things, I put this, that our experience of Barnett's was not sufficient to warrant the commission in banding over the whole of these streets to be paved by that company. Now it is very different with the Val de Travers, likewise the Limmer, but of these two, if we compare them, we shall find that the Limmer is less slippery than that laid by the Val de Travers, and the durability and elasticity are greater. I can state, on authority, that during the time the Limmer has been down in Lombard-street, only eleven horses have fallen on it, which is a difference in the number that have fallen on the Val de Travers. Then we have this disadvantage with the Val de Travers, that in consequence of the compression being greater, the noise of the hoofs of the horses is intensified. Then you hear from Mr. Heywood that the asphalté in Cheapside has often been under reparation, which is a great nuisance and hindrance to the traffic, but it is very different indeed with that laid down in Lombard-street. I should like to have seen the Limmer continued from Cornhill

through Leadenhall-street, to test the benefit of the asphalt—how could I do so? I found myself in this difficulty—it is a question of cost; and when the work was 3s. 6d. a yard more than the other, I thought I should be out of place if I moved an amendment. But I am bound to say this, that if the commission think that, after all, the limmer will be the cheaper (because it does not always happen that the lowest thing is the cheapest), I shall give the question my most serious consideration.

Mr. Knight reminded the court that Barnett's asphalt had been tried under adverse circumstances. The limmer was an excellent asphalt, but, as far as they could judge, Barnett's was wearing exceedingly well. They would be doing wrong if they did not support the committee.

Mr. Deputy H. L. Taylor regarded the discussion as interesting and important, because it had imparted a great deal of information. The public were deeply interested in the question, not only on account of the comfort of the material, but in the matter of its expense. He thought the recommendation of the committee was entitled to their best consideration. He had no interest in any one of the companies, and could speak disinterestedly upon the question. It was of the greatest importance to this commission to give every company a fair trial, and no advantage should be taken of any one that had laid down asphalt under inauspicious circumstances.

It was agreed that Barnett's asphalt should be further tried, and that the carriage ways of Lothbury, Bishopsgate-street Within, Leadenhall-street, and Fenchurch-street, be laid down with that material.

The Streets Committee further recommended that the footways of King William-street (from the Statue to the bridge), that one side be paved with the limmer, and the other with the Val de Travers Asphalt, subject to arrangements.

We see in this that the London Corporation are giving fair play to all the companies whose materials offer any advantages. We have already spoken in favour of well-laid asphalt pavement for Dublin would be a great improvement and also a great saving to the city in the end, and we see no reason to alter our opinions. It must be laid down in different thoroughfares, and laid down properly; and we venture to say if the work is done in a skilful and workmanlike manner, it will give general satisfaction as a clean, noiseless, and durable pavement. We do not advocate its general adoption in all places, but in the main streets and leading thoroughfares it can be used with profit and advantage to the city.

UNSTABLE BUILDING SOCIETIES.

SOME time since we devoted a couple of papers in exposition of the state of some of our boasted building societies. Of course our statements were doubted, though we conclusively proved that these societies, in general, as at present conducted, do not benefit the borrowers. In Dublin, as well as in London, we can prove by the state of these bodies that they are as shaky as possible.

In our former notice we spoke of the "Planet Building Society" among the number. At a special general meeting of the society, held a few days ago at Cannon-street Hotel, Mr. Ingoldby in the chair, Mr. Bleaby presented the report of the investigation committee, which showed, in detail, all the discrepancies and mismanagement of which the members complained. Its chief features were summarized by Mr. Bell, who seconded Mr. Bleaby's motion, that it should be received. He said the first section showed errors amounting to £216, to be deducted from the balance put as due in mortgages. The second showed that one-half of their mortgage securities were locked up. The third stated that the concern had been only making 4 per cent. interest, while the shareholders had been receiving more. The fourth treated of the value of securities for advances made on unfinished work; and the remaining sections showed the causes of the crisis—chiefly advances to speculative builders and the depression of the building trade—and made recommendations for the future of the society. The motion was carried, and a general wish was expressed that the society

should not go into chancery, but that the directors should do their best to resuscitate it. The trustees were called on to resign, and one of them (Mr. Deputy Stapleton), said they had been perfectly honest and well-meaning in all they had done for the society; but he, with his heavy engagements, was perfectly willing to discontinue his work for the society. The meeting was adjourned for the directors to propose alterations in the rules.

We trust (for the sake of the unfortunate shareholders at least), that we will not be called upon soon to chronicle the collapse of some of our Dublin building societies, respecting which we may repeat the old Irish saying that "Cows in Connaught have long horns;" to this may be added that, "Asses in Dublin have long ears," and they don't improve their health by going to Bray.

THE PESTS OF SOCIETY.

THE *Freeman's Journal*, the *Irish Times*, (two daily papers), and the *Irish Sportsman and Farmer* (a weekly one), still continue to publish a most filthy class of quack medical advertisements. The *Sportsman and Farmer* has the brazen effrontery to issue announcements proclaiming that it does not admit any quack or other objectionable class of advertisements into its columns, while it seethes in filth and abomination of all kinds. This journal is the worst and most pregnant purveyor of filth and deception in the city of Dublin. It has had many warnings of late, and certain we are if it does not discontinue its money-lending swindling, betting swindling, and medical swindling announcements, its proprietor will find himself standing in the dock of one of our public courts one early morning or another. Anything more atrocious than the conduct of some of our newspaper proprietors cannot possibly be. The *Freeman's Journal* professes to be a semi-religious organ—an advocate for the rights and privileges of the Roman Catholic faith, yet in the page, yea in the very column, that proclaims "The Glories of the Blessed Virgin Mary," and announces several other religious works, it nakedly and openly publishes the filthy and foul advertisements of Dr. Curtis, and Dr. Smith *alias* Hill, and Dr. Hill *alias* Smith, with other swindling vagabonds whom we already exposed, and compelled by our notices to change their domicile. We see by the last advertisement of A. Jones, late of Semerford-grove, Stoke Newington, that he now hails from 4 Frederick-place, Shacklewell, London. We premise Mr. A. Jones and the *Freeman's Journal* that this medical impostor will not hail many more days from Shacklewell. We will make the house that holds such a filthy fellow too hot for him. Sir John Gray, if he has any interest still in the *Freeman's Journal* of this city, ought to wash his hands out of such shameful contact. How many times do the proprietors of the *Freeman's Journal* and *Irish Times* or other Dublin papers require to be told of the wrong they are inflicting upon our people, by giving facilities to such swindling scoundrels and mock medical ruffians who patronise their papers? The *Daily Telegraph*, of London, with all its influence and great circulation, was obliged to accede to the public demand to exclude filthy quack advertisements. We would advise Sir John Gray to amend his Sanitary Works Bill, and put in a clause bearing upon the rooting out of medical quacks from this city, and purifying the press, beginning first with the journal with which his name has been long connected. He once invented a "Flushing Machine" several years ago for flushing foul sewers; this was before the era of the waterworks. There is now an opportunity for his inventive skill in trying his hands at some new invention for flushing the "Augean Stables" of Dublin.

Why do not the Detective Department of Exchange-court hunt down the agents of these vile miscreant quacks? We will be

happy in affording any official the fullest information in our power towards bringing rogues and receivers to justice. We also desire to direct attention to the betting-swindling advertisements in the above papers, coming through the agents of betting men who keep offices in Edinburgh. By a late act the robbing fraternity were obliged to levant to Scotland, where the new act is not in force; consequently, these swindlers extensively patronize some of our Dublin papers and other provincial ones. If the police authorities cannot reach them in Edinburgh, they can at all events reach the journals in this city who print their advertisements. It is the duty of the Lord Lieutenant and the Chief Commissioner of Police to cut off every avenue to public swindling, and the police magistrates of this city possess the power of not only exposing the nefarious traffic, but of putting an end to the career of local quacks in Dublin. We will be very glad to assist the magistracy of this city in uprooting the damnable traffic, and in assisting at the prosecution of all the scoundrel horde. In addition, we will supply the magistracy with a list of the nefarious impostors who publish their announcements in the Dublin press, and also the names and addresses of some of the agents through whom the orders are received. Finally, we will never cease to expose and denounce the villanous traffic, by which the minds of our youth are corrupted, and their morals debased. Hundreds are driven headlong to shame and ruin, and on the heads of many of our newspapers proprietors rest the blame as conscious supporters of systematic infamy. At the present moment none of the journals we have named are fit to be allowed into the circle of any moral living family, but fathers who do not care what way they have dragged up their own children, are careless of debasing the minds and damning the souls of others. So long as some men can pocket the filthy scrapings of a leathsome traffic, no depth of self-abasement seems deep enough for them to sink into. Perish virtue, honour consistency, and laugh in the face of honest men's scorn, but clutch with a miser's grip while you can the tempting bait. This would seem to be the doctrine of some of the delinquents in our midst, who never possessed an ounce weight of public rectitude, and whose public characters years ago were damned beyond all human remedy. The impenitent thief on the cross was an example for all time, but some of the supporters of the systems we are denouncing in this city, are incapable of furnishing a martyr except under the instrumentality of the law.

STATISTICS OF LONDON TRAFFIC.

DURING the hearing of the evidence before the Local Committee in the House of Commons for and against the Midland London Railway Bill, some rather curious and interesting statements were made. From observations taken in Cheapside on a particular day, showed that during the sixteen hours, from 8 a.m. to 12 p.m., there passed as follows:—Omnibuses, 2,604; cabs, 3,477; waggons, 1,438; carts, 1,104; private carriages on four wheels, 326; private carriages on two wheels, 83; foot passengers, 54,677; passengers in omnibuses, 21,247; in cabs, 3,307; in private carriages, 1,022; and on horseback, 4. The railway traffic at Ludgate-hill Station was stated at about 8,000,000 journeys per annum. On the Metropolitan District Railway, 11,010,467 journeys were made during the seven months ending January 31st, exclusive of season ticket holders, who added 203,449 to the number of journeys. Observations made at various spots gave the following results as to the numbers passing during twelve hours:—In Oxford-street, 8,236 carriages; Holborn, 10,560 carriages; near the Mansion House, 13,660 carriages; Newgate-street, 33,000 foot passengers; Poultry (near to the opening of Queen Victoria-street), 75,100 foot passengers.

THE IRISH EXHIBITION AND PUBLIC DISSENT.

WE give below, in a summarised form, a portion of the correspondence we have received, embodying complaints similar to what we published in our last issue. We could not honestly "burke" or deny insertion to the complaints of our several correspondents, even though we might differ from them on some points. Some very severe strictures have been passed on certain officials, which we thought it our duty to eliminate, as we are not desirous of propagating mere assertions, which may not have any real foundation.

Keeping strictly to the region of fact, we have allowed our correspondents to have their say, and we are quite willing to afford those who may feel aggrieved the same liberty of reply. Viewing dispassionately all things, we are of opinion that a real grievance has been shewn to exist in connection with two matters treated of in the correspondence we have published. It is not too late to remove the cause, if we are to have a successful permanent Exhibition in this city of Arts, Manufactures, and Industries.

"A Marble Mason," among other matters, complains of the preference given, on the part of the Exhibition authorities, for foreign marble or imitation marble, and instances a new patent article under the name of patent Marcezzo marble. He says Sir Arthur Guinness, through the advice of his managers and superintendents, gave a large order for the production of ornamental objects constructed of this new material. He thinks that the quarries of Galway, Killaloe, Kilkenny, or elsewhere, could have furnished the *bona fide* article of every variety of colour and far cheaper; and he further says, that the Committee ought to have placed up a notice at the Exhibition building some months ago to the effect that—"No Irish need Apply!"

Two other Marble Masons, one in Dublin and the other in Belfast, write in a similar strain; and "A Belfast Marble Mason," writing from Euston-road, London, believes that the "Northern Athens" could have produced proficient sculptors and stone-carvers to have met all the requirements of the Dublin Exhibition. He asks, what about Mr. Clancy, whose figure of the "Irish Beggarman" attracted so much attention at the Workman's International Exhibition in London, an inimitable work in its way, hewn out of the freestone of Scrabo quarries. He supposes that Clancy was too "provincial and plebeian" to have suited the tastes of the London patrons in the Irish Exhibition.

"An Architect's Assistant" considers that the architects of Dublin are only meeting with their deserts, in consequence of lukewarmness for many years in respect to the upholding of their profession. If they will not exhibit a proper *esprit de corps*, and keep alive and in vigour an Irish Institute of Architects, he thinks that they have little reason to grumble at being pushed aside and snubbed by "foreign superintendents, amateur architects and engineers, or churchyard masons." He also severely criticises the character of some of the work executed at the Exhibition building "as devoid of artistic taste, and as being more fitted for a tea-garden than the accompaniment of an Irish Exhibition of Arts, &c."

"A Brass Founder and a Gas Fitter," speaking of the fittings supplied by Messrs. Defries and Sons, of London, asks, could there be found no respectable Dublin firm to execute the work, and is it because Messrs. Defries and Co. supplied some of the fittings connected with Thanksgiving Day in London that they were selected to illuminate the Dublin Palace? Every article and fitting, our correspondent says, could be supplied by city houses here, and that it would only be strict justice to have given the order, or a portion of it, to an Irish firm, the members of which are expected to support their native Exhibition. Our correspondent bears heavily on the matter of London appointments, from the "superintendence of fine arts down to the caterer of refreshments." In each field the selections, he thinks, were all "on principle," the principle of "putting Englishmen in and Irishmen outside the building until the opening day, when their attendance would be, no doubt, kindly solicited."

"An Operative Coachmaker" points out the injustice which his employers suffer, and their trade, by the action of the Managing Committee of the Exhibition. This grievance is more clearly pointed out by the following correspondence:—

"SIR,—We, intending Irish exhibitors of carriages at the forthcoming Exhibition, beg through you to draw the attention of the nobility, gentry, and clergy of Ireland to the palpable injustice inflicted on us by the marked inferiority of the position assigned us for exhibiting our manufactures compared with the place allotted to our English competitors for showing theirs.

"Some months ago we received circulars announcing an Exhibition of the 'Arts, Industries, and Manufactures of Ireland,' and inviting our co-operation in the undertaking. Upon this invitation we prepared specimens of our work for exhibition, but we did not imagine that, instead of an Irish exhibition, it would turn out to be little else—at least so far as our business is concerned—than a monster emporium for the sale of foreign manufactures, English carriages having been allocated to the best position in the principal hall of the building, and the 'mere' Irish having to retire to a remote part of the annexe.

"No greater injury could be sustained by the manufacturers of carriages in Ireland than by not affording them a fair chance, on an occasion like the present, of competing with those of other countries. The plea of a 'geographical division of the exhibits' can have no other effect than to depreciate Irish skill and workmanship when the place allotted for their display is not equally favourable to that assigned to our English friends. This flagrant wrong should be at once rectified, if the executive wish to be considered as having acted with strict impartiality to all parties, and if they do not desire to see realized the general manager's (Mr. Lee) sneering insinuation, that Irish coachbuilders will not be able to 'hold their own when the Exhibition opens—the public being the judges.'

"On the question at issue, however, the public will be 'the judges' too, and if redress does not come to us from Mr. Lee or the executive, we shall confidently appeal to the public for their verdict.—We are, sir, your obedient servants,

"H. E. BROWN AND CO., 13 and 14, Redmond's-hill.

"ANTHONY O'NEILL AND SONS, North Strand.

"JOHN COLCLOUGH AND SONS, 22 and 23, Duke-street.

"F. SANDERSON AND SONS, 34, Lower Dominick-street.

"ROBERT E. GRADY, 38, Dawson-street."

A later letter from Messrs. Brown and Co., one of the above firms, again draws attention to the unattended to complaints of the coachmaking firms:—

"SIR,—After all the letters and articles that have been written upon this subject since the publication of our correspondence with the Executive Committee, there still remains the undenied and undeniable fact which no explanation can get rid of, and no apology excuse, that in an Irish Exhibition in the metropolis of the country Irish exhibitors are relegated to a secondary portion of the building, as must be self-evident to every visitor to the Exhibition Palace.

"If the coachbuilders, as has been asserted, incorrectly, however, are the only Irish exhibitors who have had even the spirit to make a complaint, such should not, we think, be made a subject for congratulation to any but their English competitors.

"There is one consideration which has not been alluded to, but which is of the highest importance. It is that this Exhibition is not for one season only, but is intended to be permanent; and thus what would be otherwise a temporary disadvantage, is rendered an abiding and intolerable injustice.

"In the 'Dargan Exhibition' the carriages from this house were placed alongside Her Majesty's. Why should there be any invidious distinctions made now? And if such distinctions be necessary, is it unreasonable to inquire why should the disadvantage fall to the lot of the Irish exhibitors?—We remain, sir, your obedient servants,

"H. E. BROWN AND CO."

Several fresh correspondents, in addition to those acknowledged in our last issue, write to us, a number of them belonging to the building branches. They must excuse us for not giving insertion to their letters, as we have not sufficient space at our disposal. What correspondence we have already published shows the feeling in the city and provinces; and we regret that a cause should

arise in this city naturally leading to such strong expressions of public dissatisfaction with the management of the Irish Exhibition.

THE DUBLIN CENTRAL RAILWAY SCHEME AND THE CORPORATION.

THE Corporation of Dublin, or that portion of it who have elected to accept Sir John Gray as their mouthpiece, have added another to the many disgraceful public acts that have proved them to be traitors and betrayers of their public trust, and a greater public nuisance than the most feculent evil of another kind which our city is labouring under.

Sir John Gray and his aiders and abettors know in their hearts that the erection of a monster railway station over the Liffey, occupying that space between Carlisle and Essex bridges, would be utterly ruinous to the beauty of our city and our river; and if we could not quote this man's words of a few years ago, expressed in a language diametrically opposite to what he gives utterance to to-day, we would not wonder at his public conduct. Dr. Gray, the journalist unknighthed, and the Traverser and Repeal Martyr of 1844, is an entirely different personage than the individual whom the wand of Earl Carlisle transformed into Sir John Gray. The Chairman of the Waterworks Committee has gradually grown to be indispensable to English companies, but the man of '44 or '48 would not be touched with a forty-foot pole, for his interest was *nil*, and his utility was only known to himself. We speak of Sir John Gray solely in his public character, and we are forced to say, that most of his recent public acts and advocacy are utterly ruinous to the best interests of this city. If he desires to be told why we think so, we will give him at any time an elaborate detail of the reasons, spread over many years. It is not, however, entirely with the individual, but with the body of which he is a member, we have to do on this occasion. They have resolved, by a majority, to sanction and back out a monstrous piece of jobbery—to support a scheme which will utterly disfigure the best view in our city; and dare anyone coolly tell us that the support of the Corporation is a pure and disinterested support? It is loathsome to think of such abject conduct and submission as this consent of the Corporation. The citizens of Dublin are scarcely deserving of better treatment, when they vote in such a parcel of unprincipled characters to represent them.

It may be thought, as an architectural and industrial organ, we would be pleased at seeing new works projected and carried out in this city. Truly we would. In this case, however, we can see nothing but ruin and spoliation, disfigurement and disgrace; and we do not feel called upon to sanction or advocate a system that ends in such results.

We promise the Corporation of Dublin that they have not heard the last of this Central Railway Station project. If some men allow themselves to be made dupes of in the Corporation, it is their own fault. Oily speeches, on the part of spokesmen and leaders, may be very pleasant, but *sub rosa* these are most pleasant sights where the real motive action has its spring. It is not given to all to feel the joy that succeeds well-requited labour, even though more than the boots have to be soiled in performing it. Enough. We are much mistaken if some men have not written their epitaph already, and though it may not be inscribed on their tombs, it will become a moral and a deterrent monition in the mouths of men—"Cease to do evil, and learn to do well."

The Corporation of Dublin stands alone among the municipal bodies of Great Britain, inimitable in uselessness, and unapproachable in vulgarity and degradation.

MONS. NADAL AND THE EXHIBITION.

WE have received a critical document by high authority regarding the construction of the rotto-work, ornamental fountains, &c., under Mr. Emden, the architect who was entrusted with the general superintendence of the works at our Dublin Exhibition. We have got space in our present issue to enter into the details furnished concerning the part played by the architect in the construction, or of the originality claimed for the designs, which, according to the description furnished by us, sets at defiance all previous notions of irregular harmony. The plans and designs of the fountains, the figures attached, and the modes adopted for the water supply, particularly the latter, are commented upon, and it is instructive and amusing in its details.

Knowing something, from external observation, of the work described, we are helped to a conception of internal construction and the faults belonging. It would appear that the letters published in our last issue were not unwarranted, and can be borne out by 'irrefragable proof.'

LIBRARY AT THE BRICK AND STONE LAYERS' HALL, CUFFE-STREET.

On Thursday evening the brick and stone-layers' trades assembled in their spacious hall, Cuffe-street, for the purpose of listening to an address by Dr. O'Leary, a gentleman who takes great interest in the welfare of the working men of our city, and which is indeed to him a labour of love. In order that the trades above-named may participate in the universal demand for "technical education," he has been instrumental in the formation of a library for their use. This was opened for the first time on the above-mentioned evening. It contains already some hundreds of useful and interesting works, the number of which will, no doubt, be soon increased by the donations of those amongst our citizens who are friends of the working man, and know the difficulties he has to contend with as a bread-earner. Dr. O'Leary's well-timed and eloquent address was listened to with deep attention, and we hope it will have a beneficial effect upon those who had the pleasure of being present. We regret that we have not space for even an abstract of it.

IMPORTATION OF FOREIGN MARBLE INTO IRELAND.

SHIPPING coals to Newcastle would be scarcely less absurd than importing continental marbles into Ireland. If it were Carrara marble intended for statuary purposes, there might be some excuse, though even for statuary purposes there is marble to be found in this country.

We read among the list of imports—"Received from Antwerp, per Mauritius, 10 cases; from Leghorn, per Nuove, 400 slabs, 17 bxs." We would like to know for what special uses is this foreign marble intended; whether it is destined for civil or ecclesiastical buildings, or for the purpose of sale by our marble dealers? On a former occasion we instanced the existence of several Irish and English quarries that could furnish the requisite material for any sort of ornamental work, and of every variety of colour. Only a few days since we inspected a very elaborate and beautifully-constructed fountain, of very large and towering dimensions, in one of the districts of London, and we were pleased to find that a number of its panels were composed of some of our splendidly-grained Galway marble. The erection of this fountain, although not a work of yesterday, proves that its designer appreciated the beauty and value of Irish marble, and did not need to send to the banks of the Tiber when he could procure more fitting material on the banks of the Shannon.

THE PRINCE CONSORT MEMORIAL.

THE ceremony of inaugurating the Prince Consort Memorial is fixed to take place on Thursday, 6th inst., by H.R.H. the Duke of Edinburgh, K.G. He will be accompanied to the Leinster Lawn by their Excellencies the Lord Lieutenant and the Countess Spencer, and will be received by the Memorial Committee, the Royal Dublin Society, the Lord Mayor, &c. &c. Mr. J. H. Foley, R.A., sculptor, by whom the figure has been executed, will also be present.

HOME AND FOREIGN NOTES.

THE IRISH VAL DE TRAVERS PAVING COMPANY.—By an announcement in our advertising columns it will be seen that the above company are now prepared to undertake the laying down of their asphalt on walks, platforms, floors, &c. The piece of roadway recently put down in Grafton-street was executed by this company, and we have just learned that His Grace the Duke of Leinster has ordered the extensive use of it at Carton, in garden walks, out-offices, &c.

OUR NATIONAL MONUMENTS.—Commenting on a paper by Mr. Young, C.E., which appeared in our columns, the *Newry Telegraph* says the subject of the preservation of our national monuments is receiving attention in the North. A memorial lies at the News-room, Newry, for signature, and a similar memorial is receiving signatures at Belfast. The Belfast Naturalists' Field Club are imitating the action of the Royal Archaeological Society of Ireland, and are moving in the matter. Our contemporary adds:—"It is one in which Irishmen of different religions and politics can agree. Druidical altars, old Rath, round towers, old churches, abbeys, &c., are the unwritten records of the past, and should not be allowed to be destroyed, either by neglect, or considerations of utility. An elaborate paper in the *Irish Builder* contains much information on this subject, and gives surprising details of the extent to which national memorials are being destroyed."

STATUES.—A statue to Shakspeare has been erected in New York, and a movement is on foot there to erect one in the Central Park to Mazzini, the Italian patriot. In Paris the statue of Ibrahim Pacha is about being erected outside the north transept of the Palais de l'Industrie. Lord Northbrook, in India, unveiled the statue of her Majesty in the beginning of May. It was presented to the city of Bombay by the late Guicowar of Baroda. The statue of the Prince Consort has also been unveiled early in the month, on the occasion of the opening of the Victoria and Albert Museum. The Punjab Mayo Memorial are raising a subscription for a suitable monument to the Late India Viceroy.

NEW HALL, ENNISKILLEN.—A local contractor Mr. Elliot has commenced operations for the completion of this building, according to new plans approved of by the committee.

NELSON'S PILLAR.—The trustees of the Nelson Column have refused to accede to the application of the Corporation, in reference to the removal of the lower step to the base of the pillar, stating that they had no legal power to consent to such removal. It was their opinion moreover that the removal "would interfere with, and destroy the symmetry of the structure." It would be opine be an impossibility to destroy the symmetry of Nelson's Pillar, from the fact that it never possessed any.

TRAMWAYS IN BELFAST.—The laying down of the rails for the proposed tramways in this town has commenced and are pushed on vigorously.

WARRENPOINT AND KILKEEL TRAMWAY.—The arguments in this matter were resumed before the Judicial Committee of the Privy Council on Wednesday last. Mr. Stewart and several other inhabitants of the district appealed against the sanction given by the grand jury of the County Down to the promoters of the line of tramway between Warrenpoint and Kilkeel, on the ground that, as locomotive power was intended to be used, it would endanger the public safety. Mr. M'Blain and Mr. Weir appeared on behalf of the promoters of the line, and Mr. Bruce was for the grand jury. M'Blain said the promoters could not give up the intention of having locomotive power. Mr. May, Q.C., said both the surveyor of the Board of Works and the county surveyor were opposed to the employment of locomotive power, and in their opinion it would be highly dangerous to the public safety. After considerable discussion, a question arose as to the admission of evidence respecting the advisability of sanctioning the construction of the pro-

posed line, and the case was adjourned generally. The bill for promoting the undertaking cannot, therefore, be proceeded with during the present session of Parliament.

THE CORK TRAMWAYS.—An extension of three months' time has been allowed for the completion of the lines of this company.

A NEW STREET.—A report from No. 3 Committee was brought up, submitting a plan for a proposed new wide street from Dame-street to Christ Church Cathedral. The expense of construction, according to the engineer, would be £22,500. A member remarked very truly that upwards of forty years ago the then Corporation obtained an act for the same purpose, yet it was never carried out, or even an effort made in that direction. We are not sanguine, it is needless to say, respecting the realization at present.

"THE LOAN EXHIBITION."—Among some of the pictures contributed by Lord Buckhurst to the Loan Collection of the Dublin Exhibition are the portraits of Oliver Goldsmith, David Garrick, and Richard Brinsley Sheridan's wife, when Miss Linley. They are the work of Sir Joshua Reynolds, and belong to the Knowle collection, from which they have been taken.

FOREIGN EXHIBITIONS.—Exhibitions are becoming general in every part of the world, or soon will be. It is now proposed to hold exhibitions in Japan, at Keoto and Jeddo. The opening of the German Provincial Exhibition took place on the 16th at Posen. The Poles, it would seem, have entirely kept aloof, and have neither sent articles nor has any of them visited it.

THE VALUE OF PUBLIC AUDITS.—Mr. Finlay, whom our readers may remember was appointed to audit the accounts of the Dublin Corporation, has been lately engaged in investigating the accounts of the Londonderry Lunatic Asylum, and has discovered a good deal of irregularities. It is his intention to make a special report upon these irregularities, which we understand are of a serious description. We much regret, for many reasons, that the audit of the municipal accounts of this city were shelved for a time, as the conduct of the Town Council too plainly proved that they feared an investigation before they had time to tinker up the accounts of their own auditors. They have, however, received a lesson which we hope they will profit by in future. The audits at Limerick, Drogheda, and other places have proved quite enough; but we think, in view of late events in this city, it will be necessary to hold an investigation into matters upon oath, so that serious irregularities may be thoroughly probed to the bottom.

A SITE FOR THE GOUGH TESTIMONIAL.—This subject occupied the attention of our Town Council at a recent meeting. No. 1 Committee recommended Foster-place as a proper site for the proposed equestrian statue. The Lord Mayor said that if there was a more honourable position in Dublin the Corporation should not hesitate for a moment to grant it as the site for a public testimonial to one who was so distinguished as an Irishman and as a hero. In 1812 Lord Gough was presented with the freedom of the city by the Corporation, and in 1815 he was presented with a sword of state. The sword itself was in the possession of Mr. Hogan, the sculptor, with the view of having a *fac-simile* placed in the hand of the equestrian statue. The cost of the testimonial would be £2,000. The scabbard of the sword was produced by the Lord Mayor; it bore the following inscription:—"To Lieut.-Col. Hugh Gough, of his Majesty's 87th Regiment, this sword is presented by the Corporation of Dublin, as a testimonial to the high sense entertained by his fellow-citizens of the services he has rendered to his king and country. Dublin, 17th July, 1815." Considering the time the O'Connell Monument is in hands, perhaps we may anticipate the erection of the Lord Gough Testimonial some time before the twentieth century.

AN EXAMPLE FOR SCULPTORS.—The well-known Dantan, sculptor and caricaturist, leaves by his will 30,000f. to the city of Paris, 20,000 of which are to be devoted to founding an annual prize of 1,000f. for drawing or sculpture. The 10,000f. remaining are to serve for the maintaining in good repair the tomb of the deceased.

The foundation-stone of a new mansion for Lieut.-Col. O'Donnell, at Castle Trugh, Co. Limerick, was laid a few days ago. It will be in the old castellated style, and will occupy a fine site in a picturesque portion of the county, commanding very extensive views. The dimensions of main building will be 100 ft. long by 50 ft. wide. The ceremony was performed by Mrs. O'Donnell. Mr. Sidney Cox, C.E., is the architect, and Messrs. M'Carthy and Guirein the builders. We have not been informed as to the probable cost, or whether there was a competition for the contract.

THE OPENING OF THE EXHIBITION.

THE Exhibition, as previously announced, opens on Wednesday next, the 5th instant. The preparations for the ceremony, and the arrangements are nearly complete. Since the date of our last issue, many objects in various departments have arrived, and have been arranged. The contributions to the Loan Museum have been augmented by additions from South Kensington, and from private collections in England and this country. In porcelain and kindred materials, there are some very good specimens, including articles in Dresden, Worcester and Wedgwood, &c. The Irish collection of antiquities is very small, and if a museum is to be formed of a permanent kind, a different method will have to be devised for establishing it than what has been adopted.

Among the works of sculpture, many of them are well-known figures of merit, which have already been on view in the Royal Hibernian Academy and other public institutions. The paintings are numerous belonging to the old (and new) masters, and there is a goodly collection of portraits in the Portrait Gallery. Of raw products and of articles, the creation of the industrial arts and manufactures, Irish and English, there is a fair display; but of their value, and considered as specimens of the class they represent, we will speak when they are fairly on view, after the exhibition opens. In respect also to the arrangements intended to supply the wants of the visitors, and those also in relation to the government of the building, we will postpone all description until we can fairly test their utility. There are many matters yet not fairly developed in the building, which it would be premature to attempt to describe, and we do not wish to be committed to any statement beforehand, that a future examination may disprove.

A good deal of commendable activity has, during the last few days, been shown by the management to complete the necessary preparations before the opening day, and to arrange the goods. The exhibitors have had also to push on expeditiously their fittings for their several exhibits. Visitors, in a few days of intelligent observation, will have an opportunity of drawing their own conclusions as to the merits of our Irish Exhibition. There will, however, be a large class of our countrymen at home and abroad who will not have, perchance, any opportunity of ever witnessing the display. Among these will be men and women of all classes and professions, and in the interest of the mechanical and artistic portion it will be our duty to describe things as they exist, and deduce lessons therefrom that may help them in the battle of life. Truth and technical instruction combined can be taught to our industrial classes, by fairly pointing out our failures as well as our triumphs in connection with this exhibition.

TO CORRESPONDENTS.

THE CORPORATION OF DUBLIN.—The Municipal Council of Dublin is becoming every day more and more rotten. In fact, the action of several of its members is stamping the body with an everlasting disgrace. Between offices in Westminster and certain offices in Dublin a continued correspondence is kept up in floating projects, projecting schemes, and promoting bills, and there must certainly be a consideration and something in the shape of more than a "hundred thanks" allowed for this sort of nefarious traffic. The vote or acquiescence of the Corporation is managed by the usually adroit gentlemen who enter into these bargains, and this being secured, it matters not if the city is damned or disgraced. As certain as the sun shines, there will be an exposure one of these days that will make some M.E.s and Town Councilors' toes tingle in their boots.

EXHIBITION MATTERS.—An aggrieved party sends us some particulars too late to be available for this issue, but we will do him justice, if not too late, in our next, without doing any injury to others. A grievance is a grievance, and when it is stated fairly, it shall meet with due consideration at our hands.

SUPPRESSING CORRESPONDENCE.—A correspondent is advised to write to the *Daily Express*; it has shown more honesty than the pretending "Home Rule" organ which has been running with the hare and trying to keep in with the hounds. The wretched twaddle of that organ is disgusting. What it cannot openly suppress, it cuts up and disguises for fear of injuring its miserable existence or losing the chance of an advertisement. It professes to be a friend to the working classes of Dublin, but it denies insertion to their just

complaints, although it is not asked to subscribe to the opinions of the writers.

A BUILDER.—Next issue perhaps the matter will be taken notice of, and details given.

AN ENGLISH ARCHITECT.—By all means furnish us with the particulars, and we will be only too happy to comply with your request.

FINBAR (CORK).—Some of your great townsman's works will, we believe, be on view in the Dublin Exhibition, or copies of them.

ARCHÆOLOGIST.—Write to the Secretary of the Royal Historical and Archaeological Society of Ireland, Kilkenny. He will, no doubt, furnish you with the particulars of membership and afford you other useful information.

A STONE-CUTTER (Belfast).—It is taken in at the "Athenæum, and Working Men's Reading Room," in the town. To your second query, write to Messrs. Lockwood and Co., London, and they will furnish you with the manual you require, if you cannot get it through any of the booksellers in the town.

THE ROTUNDO HOSPITAL.—This building was the first of its kind established in Great Britain, and it owes its foundation to the liberality of Dr. Bartholomew Mosse, a genial and worthy physician of this city. Richard Castles was the architect. He was brought over to this country between 1730-40 from Germany by Sir Gustavus Hume, of Fermanagh, and he practised here for many years, executing a great deal of work for the Duke of Leinster and family.

CLONTARF CASTLE.—The rebuilding or restoration of Clontarf Castle was carried out by the younger Morrison (William Vitruvius), the son of the late Sir Richard Morrison, one of the early pupils of James Gandon.

RECEIVED.—"J. B.," "Celticus," "A Working Man," "Fair Play," "An Operative," "A Shut-out Exhibitor," "Cork School of Art," "Civil Engineer."

T. M.—We are glad to be reminded that there is in Ireland one journal devoted specially to "Gardening and Rural Economy." We hope it receives the support it merits.

P. J. S.—Thanks for the copy of report. It is a most important document, and shall receive due attention in our next.

F. H. (Belfast).—We do not know such a name amongst architects practising here.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—JAMES EPPS & CO., Homoeopathic Chemists, London. Also, makers of Epps's Cocoaine, a very thin beverage for evening use.

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NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

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We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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The Irish Builder.

VOL. XIV.—No. 300.

Our Municipal Government.

EVIDENCE the most certain of the decadence of Municipal Institutions, if looked for, would be found in this city. Dating back to the communes and boroughs of the middle ages, we can trace the rise and growth of these bodies in the early guilds of trade. The functions which these bodies performed, the rights which they upheld, the privileges which they secured, and the public spirit which they exhibited a century or two ago, are but matters of history now, and the lamentable fact remains that many of our modern corporations have degenerated into close boroughs of systematic intrigue and shameful jobbery. It is a sad task for this journal to be imperatively obliged to so often censure and denounce the action of the Corporation of this city, which has for many years been degrading the very name of municipal government, and making local rule a thing of abject contempt and scorn. Upwards of thirty years since a so-called "Reformed Corporation" came into power, in pursuance of the Irish Municipal Acts, yet from 1842 till the present hour each year has been signalized by some departure or other from the path of reform to the headlong incline of degradation. Of course in the lapse of thirty years some improvements have taken place in our city, with which the Corporation was more or less connected; but the chief progress made by Dublin was owing more to individual and collective efforts outside our Municipal Councils than within them. There has been hardly one public advantage conferred upon our city by our Corporation, which has not been more or less tainted with jobbery and signalized by gross incapacity and enormous extravagance. Every scheme proposed to benefit the town was mixed up with scheming, every project with the smallest germ of good has been made a milch cow of by one intriguing speculator or another. Whether the project was connected with paving, waterworks, or main drainage, the scheme was floated with the double object of benefiting certain private individuals instead of the community at large. Plotting and counter-plotting, oppositions and counter-oppositions, private wire-pulling and make-believe open protest, the whole gamut of trickery and chicane, has, at one time or another, been resorted to by opposing parties to secure their dishonest ends. Even newspapers for a consideration held their peace, or wrote up or wrote down, and the intriguers who were materially benefited in more instances than one were journalists themselves.

This is a sad recital, yet we vouch for its accuracy, and we boldly challenge contradiction. Is it any wonder, indeed, that honest men should shrink from entering public councils which have been so degraded, and that they have folded their arms at last to await

the end in silence that cannot now be far distant? Had we a municipal body in Dublin of intelligent and practical men, who knew their duties and dared to perform them, our city would be a place to be proud of. Bankruptcy and ruin, filth and folly, disease and decay, would not be everywhere observable.

It is pitiable, indeed, to see a Corporation that might have surplus funds in its hands, appealing in *forma pauperis* every other day for aid to cleanse our streets. With almost every rate in the city mortgaged, human incapacity and imbecility whines and slavers in our Municipal Council that it is dead beat, and the collective wisdom of the incapables stutters out, as a last resource—beg, beg a loan from the Treasury, or increase the rates! The sequel of these begging transactions is on a par with the previous systems that renders them necessary on the part of the mendicants. As soon as the loans are secured the miserable intriguers and hangers-on set themselves to work to create new appointments for themselves or friends, and to vote for an increase of salaries for other friends. It would shock the ears of the polite to be told that generally a *consideration* is understood. The misfortune to our people and our city is that the law is at present unable to reach these moral assassins of our public credit, character, and institutions, and the cancer is left to eat its way into the very vitals of our city, killing it in detail. It is a notorious fact that the secret service and the open advocacy rendered by well-known members of the Corporation of Dublin is a theme for conversation in certain clubs and meeting-places in London. When a bill is about to be framed, or an opposition scheme floated, the influence of certain gentlemen in our Municipal Council is counted upon; this influence once secured, the promoters are confident that the neck of the Corporation can be twisted in the direction of the reputed head. Let it be known also that a make-believe opposition is often got up to projects for the purpose of being bought off. When these transactions are completed to the satisfaction of all parties, the opposition to the "obnoxious bill" is withdrawn.

This journal has already made some schemes impossible of realisation; and we promise the citizens of Dublin that there are other schemes in which members of our Corporation are interested, which will receive an early exposure at our hands. We know something about the committees of the House of Commons, and the sort of manufactured evidence there introduced, and we also know a little about how the legal gentlemen come to be appointed who are sent to represent this city on various occasions. It is part of the system which has long since begun in Dublin, and is not fated yet to end at Westminster.

Need we once more remind the ratepayers and burgesses of the city that they possess the power, if they choose to exercise it honestly at the next ward elections, of rendering it impossible for the majority of the present Town Council to misrepresent our city?

The "Municipal Corrupt Practices Bill" is before Parliament, and we hope that it may soon become law. Once passed, it will help to purify the Councils of this city, and will strike terror into the hearts of knaves whose consciences have long since collapsed under the action of a villanous dry-rot. If the ratepayers at next election do their simple duty, the reform of our Corporation may not be an impossible matter. More hereafter.

IRISH BUILDING SOCIETIES.

WE had lately found it necessary to direct public attention to the administration and management of several building societies, and also to the conduct of these associations in general. It was left for the speculators and pioneers of these societies in Ireland to ignore the spirit of the Act, and to transform building societies, as soon as they felt themselves possessed of sufficient funds, into investment associations. In fact, more than two out of every three of societies calling themselves building societies in Ireland are only trading on false pretences. It is time that a check should be put to the floating, to the conduct, and even to the existence of the majority of these so-called building societies. They must either trade under their right colours, conform to the laws that regulate building societies, or be cut off by a swift and sharp law procedure from the trunk to which they cling. The original intention of these societies was to afford to the working classes or others of small income to purchase a house that they might call their own in a few years, by paying a weekly or monthly subscription for a few years, the said subscription being slightly in excess of what they would have to pay as an ordinary weekly rent. These freehold dreams are, however, seldom realized from various causes which are common to most of these societies, and more particularly because the original prospectus of each new association is never carried out.

The "Second Report of the Friendly Societies Commission" has recently been issued, and it throws considerable light on the action of both Irish and English societies.

From the statement of Mr. Daniell, Assistant Commissioner on Building Societies in Ireland, we learn that the "proportion of members [of building societies] earning weekly wages, who have built houses, is unhappily small, the only building society in Ireland in which this desirable feature exists being the Coleraine Building and Investment Society." It appears that the working men members of the Coleraine society are increasing, which fact is cheering, because these societies were intended to benefit them.

Among the societies of Dublin and Kingstown there are two which may be called working men's building societies, from the fact that their secretaries and a good portion of their members are working men; but, unfortunately, there are very few of their members who have either built or bought houses. The advances are made to tenants, who make over their leases to the society, as security for the loan.

There is one prominent and much advertised building society (so called) in our midst—"The Irish Civil Service Society"—which ought to honestly tell the truth in its public announcements, and cease misleading the public. This society is now pretty strong in funds, but its artisan or working men members are but very few indeed. It is a middle-class body, and truly and really a joint-stock company, having, according to the confession of its officers before the Commission, ceased to receive shares. What earthly use, therefore, is this Irish Civil Service Society to working men? None. It exists on a false foundation; trades under a false name, has ignored its original prospectus, and distrusts the very class of men who helped it on its feet. In the words of Mr. Daniell—"In ceasing to provide a safe

investment for the savings of the poor, the Irish Civil Service Society must, I fear, forfeit all claim to the title of a building society. Money is now received only on deposit, and invested for the profit of the existing members. The society, therefore, is now more a loan society with perfectly good security, than a building society."

The great and vital objects of building societies ought to be to enable the working classes to raise themselves, and to secure a permanent home in the future, and this by the aid of a small weekly subscription. A man or woman or a whole family may stint themselves in the necessities of life—in food, clothing, and drink,—and “cut their cloth according to their measure,” but in the matter of rent there is no escaping payment, or of living in a house rent free, until it can be claimed as your own. Loss of employment, therefore, is a serious misfortune to a man of family; for, if driven out into the streets by a hard landlord, the poorhouse is the only resource, and when once there, ten chances to one if the family all their lives afterwards are not confirmed paupers. Of course no person or family can expect to live for any lengthened time rent free, and in this city there are classes of poor house-owners or landlords who are not far above the reach of beggary themselves. Such a class of miserable beings cannot, in justice to themselves, afford to allow their tenements to be occupied by an unemployed person for any length of time. While working men are young and strong and in the vigour of health, is the period for doing something towards the provision of a future free home; and to enable the working classes to do this, *bonâ fide* building societies offer many advantages. Working men in general are not able to pay large weekly or monthly sums in the shape of subscriptions, but they are in a position to contribute sums amply sufficient for the purpose.

Building, or so-called building, societies which advance or receive money in large amounts are not building societies either in the spirit or nature of the Act of Parliament, or in reality at all. It is useless for the conductors of these so-called building societies to say that their being restricted to lending money on house property alone, or in the case of absolute surplus, on securities equally absolute, constitutes them in the spirit of the Act building societies. The late Commission was timely in more than one direction, but its work was not exhausted by any means, for we fear that there is a tendency by some of these bodies to discounting and speculating with the shareholders' moneys in projects and securities that are far from safe. The building society principle has not as yet taken any deep root in Irish soil, from various reasons, which we may advert to on another occasion.

To constitute a building society on a fair and equitable system of working, that it may be beneficial to its members, it should exercise judicious borrowing powers, when needing them. Many young societies have been imperilled from the absence of this power. The subscriptions of investing members and those of borrowers, should be equal if danger is to be avoided in the beginning; for, if the number of members needing an advance exceeds the depositors of every kind, there is no avoiding the necessity of borrowing. As an instance, the Irish Civil Service Society would have collapsed at one time from the number of applicants for

money exceeding the number of investing members, had it not resorted to the resource of borrowing. The borrowers are few now compared with those wishing to invest, the rate of interest lowered, the share list closed, and, as we have already mentioned, the society has virtually ceased to be a Building Society.

We need here in Dublin two or three building societies established on a firm basis, and possessing the advantages that real building societies should possess. We will be happy in favouring every honest effort made in this direction, for we utterly detest make-believe bodies of all kinds. In our next issue we will pursue the subject of our present notice, and exhibit some further details respecting some of our already established societies entitled to or undeserving of public recognition and support.

THE IRISH EXHIBITION.

We had hoped to have placed before our readers in this issue a notice of some of the really useful exhibits on view, but we must defer it until another occasion. A portion of our daily Press, in their lengthened accounts of the opening ceremony, as well as in their notices of several of the objects on view, have awarded indiscriminate praise. Persons in the distance would be led to believe that the building contained, as a whole, a collection of the most valuable kind. Now, this is only misleading the public, and does our cause considerable injury. With some exceptions the Fine Art collection, as a whole, is a respectable one, but in the matter of manufactures the show is not at all what it might have been. There are certainly many objects and specimens of the industrial arts in the building entitled to commendation, and it will be our duty hereafter to describe them, perhaps, in detail; but, on the other hand, there are a number of the most indifferent specimens of the craftsman's skill, the exhibition of which will not be wholly in vain. The exhibitors and makers of these articles will be afforded opportunities for comparison, and this may stimulate them to better efforts in the future. There is one thing which we decidedly object to, and that is the conversion of this “Exhibition of Arts and Industries” into a big Bazaar. No sales should be allowed, and “touters” of all kinds should be prohibited from pursuing their calling in the building. This traffic ought to be conducted elsewhere. If the bazaar principle is permitted to creep into art and industrial exhibitions, art will lose its value, and manufacture will be prostituted for the production of the most flimsy and worthless description of artistic and handicraft skill. Neither should the hall of this exhibition building be allowed to degenerate into a mere promenade or lounge for well-dressed idlers, who merely want to kill time from an inability to perform a more useful service for humanity or themselves. The object of an exhibition of this nature is not to merely amuse, but to elevate and draw forth the latent talent of the country through the heads and hands of her industrial classes. We have museums already, and though we need more of them throughout the country, in this instance it is studio and workshop creations we need, and not mere collections of the past. Although we have been obliged to speak strongly of some matters in connection with the control of the present exhibition, we are fully sensible of the good that well-arranged and well-governed institu-

tions of the kind can confer on society. Without stooping to a dishonourable eulogy of men or matters in relation to the present exposition we trust to be able yet to award the merit that is due to those really deserving, and if not fearing to honestly criticise and censure if necessary acts or objects calling for recognition or notice in the interest of the country.

THE CENTRAL RAILWAY STATION.

THE three rival Dublin Railway Bills are before the Select Committee, of the House of Commons for the last few days. The Great Southern Railway showed good cause and produced useful and sensible evidence against the measure. The witnesses on behalf of the Central scheme gave expression to the most idiotic fallacies, and Mr. Venables, in his address on behalf of the bill, had the effrontery to say that not a single household opposed the Central Railway scheme. Why, the citizens of Dublin to a man, with the exception of those specially interested, are tooth-and-nail against this jobbing, disfiguring, and ruinous measure. If it was even declared in favour by the Committee of the House, there is a hundred chances to one of it ever being carried out. Some of those upholding it only hoped to be bought off; and had they been offered a good price long since for their silence, their opposition would be *non est*.

Perhaps in our next issue we will have something more to say on the pros and cons of the Central Station Railway scheme; meantime we make room for the following letter, received as we were going to press:—

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—The Dublin Central Railway Station has occupied much public attention of late, but that attention has chiefly been applied to one side of the question—namely, to the consideration of railway interests, their workings and profits, passing by entirely the interests, conveniences, and feelings of the inhabitants of Dublin and its outlets. I was happy to read an article in your valuable publication lately, in which you most justly describe the *great disfigurement* this new and extraordinary scheme must inflict on the city. Kindly allow me to mention a few other considerations. We are already subjected to a new bridge tax, and have the immediate prospect of a new additional tax for disposing of the sewage and cleansing the river. Then springs up this new plan of covering up that cleansed river by an unsightly building of monster size and length, shutting out from Carlisle-bridge the principal sight of Dublin—the fine view up the river to the Park and Wellington Monument, and the stately spires in that direction; and to those who bring their boats up the river for business or pleasure, compelling them to row or sail under a dark vault for a space of near half a mile before they can reach light or open air, to the great injury of the navigation of a public navigable river.

But a still further objection exists. When this station is finished and comes into operation, it is naturally intended to have the effect of drawing the chief passenger and goods traffic, now distributed among the five existing railway stations in the outskirts of the city, into this one confined point between Carlisle-bridge and Essex-bridge, in the centre of the city, already crowded to a dangerous excess by tramway cars and omnibuses, and the immense traffic in carts and drays from the coal and shipping quays, yearly increasing, besides the cars, carriages, and numberless pedestrians.

How, then, can room be found in these crowded streets and passages around the new station for the immense additional influx of cars and cabs bringing passengers, and conveyances of every kind bringing goods, for the droves of cows, horses, sheep, and pigs, for the loads of timber and trees, coals, &c. which must be congregated in a general station, and the streets leading to it, either for leaving or entering Dublin, and that in the very heart of the already overcrowded city, instead of being, as heretofore conveniently divided among the five several stations in roomy localities?

Our Corporate authorities are bound to see to the safety, convenience, and comfort of the citizen passing along or crossing over our streets, and are bound to see that no intrusive erections should be introduced into them, which may entail consequences perilous to the safety or to the ordinary convenience of the inhabitants.

SPECTATOR PEDESTRIAN.

THE STRENGTH OF BUILDING MATERIALS.

FROM a paper recently read at the Royal Institute of British Architects by Captain Seddon, R.E., we extract such passages as we think will be perused with interest by our readers. The paper is published in Sessional Papers of the Institute, and is entitled "Our Present Knowledge of Building Materials, and How to Improve It":—

Engineers have, to a greater extent than architects, been compelled to study the nature and strength of materials, and especially of iron, which (used as it is by the former for every kind of work) has to be dealt with so as to economise both weight and material to the utmost, and to make the best possible use of its enormous powers of resistance to strains of every description. In fact, the extensive use of iron for constructive purposes may almost be said to have given birth to the profession of civil engineering as distinct from that of architecture, the result of which has, I think, been a tendency to too exclusive a cultivation of art on the one side, and of science on the other, to the manifest disadvantage of both professions.

Inasmuch as the architect aims at the beautiful in his constructions, as well as the useful, his profession is of a more elevated character than that of the engineer; for by assisting to cultivate the public taste he leads towards the source of all beauty and purity. Engineers confining themselves too closely to one idea—namely, the theoretical perfection of their work—have fully met the want that gave them birth, have shown how maximum results may be obtained from a minimum expenditure on labour and materials; but in mastering science they have too much neglected art, and even at times justified the absence of any aim at the beautiful, by affecting to rise above such ideas into the regions of the stupendous and the grand; but, unfortunately in minor undertakings, in little works which cannot aspire so high, we still find the same absence of any attempt to please the more cultivated feelings of our nature; or if the attempt is there, it is mostly too evident that a given sum has been expended upon purchasing a mask to hide not the loveliest of structural details below.

The question which I mean to raise is, whether we are yet sufficiently acquainted with the properties and strength of the different materials in common use for building purposes to enable us to employ them to the best advantage, or to allow of our calculating with accuracy the amount of material necessary, in every part of a structure, to meet the different stresses called into play?

It may be said by some, What more information do we want than that already within our reach? There are handbooks enough, in all conscience, with copious tables, giving the strength of all kinds of materials under every description of stress, and formulæ for calculating the requisite dimensions of beams, columns, &c., of different forms and under varied conditions: surely we are in possession of all the information any one could possibly require. Nevertheless, I think it must be admitted, on a little reflection, that the present state of our knowledge in these matters is, in face of the boasted enlightenment of the nineteenth century, by no means so satisfactory as at first sight might be imagined; or in any way sufficient to warrant our resting content without making any further researches.

Most of the data upon which calculations have hitherto been based, have been derived from experiments made on picked specimens, too small in size, and too free from such ordinary defects as are sure to occur in larger specimens, to give us very reliable grounds to go upon; the result being that we are forced to supplement our defective knowledge by using large factors of safety; or, in other words, by not straining the material used to anything like its estimated powers of resistance.

Timber.—Taking the subject of *Timber* first, I cannot perhaps do better than quote from a valuable little treatise lately published by Mr. B. Baker, C.E., "On the Strength of Beams, Columns, and Arches." At page 127 he says:—

"Unfortunately, most of the careful experiments of Tredgold, Barlow, and other early investigators were made on small pieces of timber, straight-grained and free from knots and other defects; a condition favourable, it is true, to the comparison of the results of mathematical investigation with those derived from direct experiment; but, on the other hand, leading to errors of much greater moment in actual practice, since (as every workman knows) a piece of timber uniformly sound throughout can never be reckoned upon." He then goes on to show the per-centage of loss of strength due to the inevitable defects in large scantlings, as follows:—A piece of English oak, 2 in. and 1 in. square, gave a result equivalent to a breaking weight of 8½ cwt. applied at the centre of a 1 in. square bar supported on bearings 12 in. apart, giving a calculated stress on the extreme fibres of the bar equal to 7·6 tons, or 17,024 lb. per square inch, a surprisingly high, and, as far as practical cases are concerned, a palpably exaggerated result. Whereas, taking a larger scantling of oak, 11 ft. 9 in. long and 8½ in. square, the calculated stress on the extreme fibres, when rupture took place, was only 5 tons, or 11,200 lb., instead of 17,000 lb. per square inch; and a larger beam still, 24 ft. 6 in. long, 12½ in. deep, and 10½ in. wide, gave a result equivalent to less than one-third that given by the small selected piece. He then says:—"This reduced amount shows that the average strength of the timber in this large beam was less than one-third of that in the small selected piece; and we think no further illustration is required to show the necessity of neglecting the majority of experiments made on small scantlings of oak, when deducing rules for practical application. We find the same conclusions hold good with reference to Riga, Memel, pitch pine, and other soft woods," the standard bar, 12 in. by 1 in. square, giving a maximum stress on the fibres of 3½ to 4½ tons per square inch, whilst experiments on a beam 15 ft. long and 12 in. square give a maximum stress of only 2½ tons per square inch.

If we turn to Molesworth's "Handbook of Engineering Formulae," and Hurst's "Architectural Surveyor's Handbook," both of which are books purporting to supply all the latest information brought up to date each year, we find the value of the constant to be applied in the formula for beams under transverse stress, given as five for English oak, 5 cwt. being taken as the central load required to fracture a standard bar, 12 in. long and 1 in. square; although the tensile strength of oak in pounds, in Molesworth's Handbook, is given as 17,000 lb., which would give 8½ cwt. instead of 5 cwt. as the central breaking load. Prof. Rankine, in his "Rules and Tables," gives 10,000 lb. to 19,000 lb. per square inch, as the tensile strength of oak, and 12,000 lb. to 14,000 lb. for fir or pine.

Now let us glance at the crushing strength of timber, as given by different experimenters.

Rondelet gives the crushing strength of pine as 54 cwt. to 62 cwt. per square inch, and that of oak as 45 cwt. to 54 cwt.

Tredgold took 36 cwt. for both.

Rennie gives the strength of pine at 14 cwt., and of elm, as low as 11½ cwt. per square inch.

Hodgkinson gives 92 cwt. for elm, 90 cwt. for oak, and about 54 cwt. for pine.

Lastly, I have here the results of some experiments made by Mr. Kirkaldy, on two logs 20 ft. long about 13 in. square, one of white Riga and the other of red Dantzic fir, which show, in the first, case, a resistance to crushing of 17·5 cwt., and in the last of 15·5 cwt. per square inch. Both balks failed by crushing, the lateral deflection not exceeding ·64 of an inch in either case. These results approximate closer to those made by Rennie than any of the others.

Here is a mass of conflicting evidence, notwithstanding the apparent simplicity of the subject; and yet it is by no means as simple as it seems. The conditions were, no doubt, very different in each set of experiments; the apparatus employed was different, there were different observers, and therefore it is not to be wondered at that the results arrived at differ. In fact, the seasoning alone of the specimens would at once account for a great

part of the difference; for green timber, from the moisture in it reducing the lateral adhesion of the fibres, has not more than half the strength of dry timber, and yet if artificially overdried, a considerable loss of strength would be the result.

With regard to the transverse strength of *timber* beams especially, though the same remarks apply to those of iron or any other material, what would appear to be an important element in their strength, though hitherto omitted from all calculations, is the lateral adhesion of the fibres to each other.

Iron.—I now come to the subject, and a most important one, of iron. Notwithstanding the great advance which has of late been made towards a more perfect acquaintance with the properties of irons of different classes, and notably by means of the numerous experiments made by Mr. Kirkaldy, and the stimulus which has been given to the manufacture of high-class irons, by the rival contests between iron guns and iron shields, it must be admitted, even by those who have made it a subject of special study, that there is very much yet to be learnt about iron; whilst, if we except a small circle, whose special employment has caused them to follow with interest in the track of every experiment which could throw any light upon the nature and properties of the material with which they are chiefly called upon to deal, there is a general lack of knowledge about the whole subject; besides much misconception, which the clear proof of practical experiment will alone be able to sweep away.

As a building material, iron is day by day forcing its way everywhere, and many, who not long ago would have set their faces against its use in structures aiming at a high class of art, no longer hesitate to call in its valuable assistance in order to solve constructive problems which would be beyond the reach of wood, brick, or stone,—at any rate within any reasonable limits of expenditure. Such being the case, it is essential that its properties should be thoroughly understood by all those who are likely to make use of it for constructive purposes, and that they should not merely order a girder, for instance, to carry a given load, leaving the designing of it to the manufacturer or his agent, whose interest it is to run up the weight and hence the price, at the expense of quality and good workmanship.

It may safely be said that there is no material so dangerous to trust to, without a full knowledge of its behaviour under different conditions, than iron; whilst there is none which varies so much in quality, or in the manufacture of which there is more knowledge, experience, skill, and care required, or which admits of more deception being practised upon the unwary by unscrupulous and dishonest manufacturers.

Now I think that beyond the difference between cast and wrought iron, and the inferiority of the former, when exposed to the effects of sudden shocks, there is very little accurate knowledge on the subject of the properties and powers of resistance of different classes of iron under varying conditions of stress. Their behaviour under different circumstances, such as tension, compression, shearing, bending, torsion, either suddenly or gradually applied, varies so widely according to the description of the iron under trial, that the strongest proof which could be adduced of the necessity for a far wider acquaintance with the subject is given by the ordinary formulæ in use for calculating the strength of iron girders, &c.

(To be continued.)

The foundation-stone of a vicarage and parochial hall in connection with St. Bartholomew's Church, Elgin-road, was laid on Saturday afternoon. The ceremony was performed by Lady Kilmaine, who was presented with a handsome silver trowel for the purpose. The style of architecture of new building will be in harmony with that of the church. The cost will be about £2,200, two-thirds of which is being obtained from the Board of Works, under the Glebe Houses Act. Mr. J. E. Rogers, A.R.I.A.I., is the architect, and Mr. Donovan the builder.

NOTES ON THE ECCLESIASTICAL
ARCHITECTURE OF IRELAND.BY RICHARD E. BRASH, ARCHITECT, M.R.I.A.,
F.S.A. SCOT.

ROSCREA.

ROSCREA, a town and parish in the County Tipperary, was anciently a place of some importance, and the seat of a bishopric. It is a place of much interest to the architectural antiquary, containing within its precincts a fine example of a Round Tower, the western gable of a Romanesque church, the remains of the Franciscan friary, and the keep of a mediæval castle, said to have been erected by King John. This place appears to owe its original celebrity to St. Cronan, the son of Odran, of the Munster sept of Ely O'Carrol. He was of the third order of Irish saints, and appears to have been born in the latter half of the sixth century. He early devoted himself to a religious life, and travelled through various parts of the country, erecting several religious houses. He finally settled himself at Roscrea, and founded a monastery there, which afterwards became famous. Dr. Lanigan fixes its date at or about A.D. 606, and his death, on the 28th of April, somewhere between 619 and 626; the precise year is not known.

He continued governing his monastery of Roscrea down to the period of his death, and appears to have been held in the highest respect by the neighbouring chieftains, amongst whom he appears as a peacemaker on several occasions. Thus, when the people of Ossory invaded the district of Eley, his prayers averted the impending conflict, and induced the former to return home peaceably. On another occasion his influence appeased the anger of Finghin, King of Munster, who, in consequence of some depredations committed by the people of Meath, had marched an army towards that country to exact retribution. Finghin held St. Cronan in high esteem, and entertained him with great respect at his court in Cashel when he was at an advanced age, the king himself, with a numerous cavalcade of chieftains and warriors, escorting him on his return to his monastery.

For a couple of centuries we appear to have no mention of Roscrea in our *Annals*; at A.D. 800 the *Four Masters* record the death of Fionghus, Abbot of Roscre. Archdall has collected the following notices from various sources; as they are of interest in connection with the ancient remains still existing; and as the work is not accessible to the general reader, I have thought it useful to quote some of them:—

- "A.D. 816. Died, the abbot Dioma Mac Fiengusa.
827. Died, Ciaran, a philosopher of Roscrea.
838. Died, Aidean, Abbot of Roscrea and Prior of Clonmacnoise.
862. Died, the Abbot Moanach Mac Connmaigh.
871. Died, the Abbot Aidan Mac Reaghty.
876. Died, the Abbot Robartach.
885. Died, the Abbot Reachtada.
898. Died, Reachtabra, of Roscrea.
909. King Cormac Mac Cullenain ordered by will that his royal robes, embroidered with gold and enriched with precious stones, should be deposited in this abbey."

From the above date down to 1174 the *Annals* record the deaths of a number of abbots and learned men connected with this monastery, several of whom were of high reputation. Roscrea appears to have been a bishopric down to the twelfth century, when it was united to Killaloe (see *Ware's Antiquities*, vol. i., p. 590).

Roscrea was remarkable for its *Aenac*, or Annual Fair, which had been held there from very remote times. In the year 845, upon the occasion of its celebration, when merchants, traders, warriors, and all classes were assembled, not only for the purposes of trade

but for enjoying the athletic sports and warlike games which formed an essential part of the proceedings, the Danes of Limerick came up the Shannon and attacked the assembly, deeming it a good opportunity for plunder; but they reckoned without their host. There were brave chieftains and sturdy warriors congregated there, and the mimic warfare was turned into the reality of a bloody battle, the Northmen being defeated with great slaughter, as we find recorded in "The Wars of the Gaedhil with the Gaill," as follows:—"Now the same year in which Forannan was taken prisoner, the shrine of Patrick broken, and the churches of Mumbain plundered, (the foreigners) came to Roscrea on the festival of Paul and Peter, when the fair had begun; and they were given battle, and the foreigners were defeated through the grace of Paul and Peter, and countless numbers of them were killed there; and Earl Onphile was struck there with a stone by which he was killed."

A writer in the *Dublin Penny Journal*, vol. ii., p. 270, traces the flight of the Danes from the field of battle by the topographical nomenclature of the district, and various remains found therein; he writes:—"The line by which the Danish plunderers retreated may be easily traced from the skeletons at the present day. They fled towards Moneygall, on the road to Limerick, and most of the townlands in the line of their flight appear to derive their names from the transaction. Thus, numbers of human bones appear to have been found in pits between Clonégana and the high road, and more of them in the bog between Moneygall and Cullenwain. . . . The route they followed was by the stream called Owris, as if from the Irish *Oiris*, a stop, delay, or hindrance, because it hindered the Danish flight, thence by Clonéganna, from *Cluain*, a retired place, and *Geannon*, a sword, or Geangad, a mauling, a beating, by Clashagad, from *Glas*, a field, and *Geodad*, a wounding, by Finglas, from *Fion*, troops, and *Glas*, a green, by Loughawn (*Loec*, a pool, and *Un*, evil), to Moneygall, where the battle is said to have ended. Moneygall seems to be derived from *Moin*, a bog, and *Gall*, a foreigner or stranger. Several human bones have been found in a moor near it."

Ware, in his *Writers of Ireland*, quotes a statement from the author of a *Life of St. Canice*, to the effect, that this venerable worthy of the Irish church abode for some time at Roscrea, where he wrote a volume of the Four Evangelists, known to Gaedhelic antiquaries as *Glass Cennic* or the Chain of Canice.

Sir William Betham's *Antiquarian Researches* contain an interesting account of a valuable MS. of the Four Gospels, enshrined in an ancient ornamented box, and which was preserved at Roscrea from a remote period. It is supposed to have been written by Dima or Dimma, surnamed Dubh or the Black, and who, according to Ware, was a famous scribe. This interesting manuscript was found by the Rev. Philip Meagher, parish priest of Birr, among the effects of an uncle deceased, who had been a priest in Roscrea. It passed from the possession of Father Meagher into that of Dr. Harrison, of Nenagh, who sold it to a Mr. Mason, librarian to the Society of King's Inns, Dublin, who disposed of it to Sir William Betham.

The *Four Masters*, at A.D. 133, record the burning of Roscrea, as also at 1147 and 1154; in 1157, the Cinel-Eoghan from the north invaded the midland provinces, upon which occasion the same authority records the destruction of Roscrea; finally, we are informed, at A.D. 1212, that "an army was led by the English of Munster to Roscrea, where they erected a castle."

THE CHURCH OF THE CANONS REGULAR.

This church appears to have been in existence when Archdall compiled his *Monasticon*; he thus alludes to it:—"The present church is dedicated to St. Cronan; the front of it is very old, and consists of a door, and two flat niches on either side, of Saxon architecture,

with a mezzo-relievo of the patron saint, much defaced by time; at a little distance is a cross in a circle, with a crucifix on one side, adjoining to which is a stone, carved in various figures, and at each end a mezzo-relievo of a saint; both are called, if we mistake not, the Shrine of St. Cronan." Of the church above alluded to, the west gable only is standing, and is of considerable interest to the architectural antiquary, evidencing the advanced state of architecture in Ireland in the early part of the twelfth century, when probably this church was erected, and which appears to have been of a size unusual in Ireland at that period. According to the dimensions of this gable, the nave must have been 34 ft. 6 in. wide, out and out of walls, which, allowing 3 ft. for their thickness, would leave the breadth of the nave 28 ft. 6 in.; the height to the damaged top of the belfry is 43 ft.; the thickness, 3 ft. 6 in., but the thickness of the lower storey is 4 ft. 3 in. The masonry is of squared rubble, carefully set; at the quoins are two antæ or buttresses, 4 ft. wide on face, and 2 ft. 6 in. projection, the angles being finished with a torus moulding; these antæ run square up to the eave, and have no tablings. The centre of gable is occupied by the original entrance to the church, consisting of a porch, which projects 2 ft. 8 in., and having a high-pitched gable, finished by a bold barge coping, supported by human heads for corbels; the quoins of porch are moulded. The doorway is semicircular-headed, and is 5 ft. 3 in. wide in clear of inside jamb-shaft, and 8 ft. 3 in. high from ground to springing of arch. The jamb is composed of a square pier and three pillars, two of which only remain at each side; the piers and pillars had capitals; the abacus being a bold square and chamfer, the bells enriched with human heads, they also had moulded bases; the arch members were carved in chevrons. Over the doorway, on the tympanum of the gable, is a figure, said to be that of St. Cronan, carved in low relief, with a circular patera at each side. At each side of the porch is an arcade of two semicircular-headed panels, the arches of which spring from angle-shafts, having caps carved with human heads, and moulded bases, and a centre pier with moulded arrises, resting on a raised sole of ashlar work; the abaci of angle-shafts and pier form a continuous string under the arches; two of the latter are moulded and two enriched with chevrons. Over the arches are triangular canopies, formed by a projecting square member, the under edge cut into notches; these canopies also spring from carved heads; above these canopies is a horizontal stringcourse, consisting of a square member supported by corbel heads. Over the left-hand arcade is a rectangular ope, 2 ft. 6 in. high and 12 in. wide. The gable terminates in a belfry, 7 ft. 6 in. wide where it springs from the gable; the ope for the bell was 6 ft. high and 2 ft. 6 in. wide; the head of this ope is angular, being formed of two stones. The measured drawing on plate was taken by me in the year 1851.

This interesting relic forms the entrance to the churchyard, an iron gate being hung in the ancient porch. The present church is modern, and there is no trace of the ancient one beyond this solitary gable. In the cemetery stands a dilapidated cross, of a peculiar type, where the horizontal arms are supported by curved connections from the shafts; somewhat of a similar cross is to be seen at Cashel. On that at Roscrea is carved a human figure; it is not an effigy of the Saviour, and is supposed to represent St. Cronan; it is much defaced.

On the opposite side of the road, a short distance from this gable, and quite close to the mill-pond, stands a fine example of the Round Tower, described in *Dublin Penny Journal*, vol. ii., p. 269; *Petrie's Enquiry*, 357-404.

The remains of the Franciscan Monastery, founded by Bibiana, daughter of O'Dempsey and widow of Maclrunaidh O'Carrol, in 1490, are incorporated with the Roman Catholic church.

DONOUGHMORE.

Donoughmore is a parish in the barony of Iffa and Offa East, in the County Tipperary. Its ancient parish church, which has been for many years in ruins, is situated about four and a-half miles from Clonmel, on the Thurlos road. We have scarcely any information as to its history in times past. That it was a church of some importance, we can judge from the care bestowed on its erection, some of its details being of a highly ornate character. Archdall, in his *Monasticon*, is very brief on Donoughmore; he writes:—"Donoughmore. In the barony of Iffa and Offa: St. Farannan was abbot of Domnach-mor in Machfemhin (*Act. SS.*, p. 73). This is now a parish-church in the diocese of Lismore."—(*Monasticon Hibernicum*, p. 654.) There can be no doubt that this was the church of the monastery of which Farannan was abbot, as the ancient Magh-Feimhin or Plain of Femhin comprised the present barony of Iffa and Offa. It was a very ancient territorial denomination, as it is mentioned in the *Annals of the Four Masters* at A.M. 3506; also at A.D. 571 and 759. In our ancient annals and hagiologies we find several eminent ecclesiastics of the name Farannan or Forannan.

The church of Donoughmore consists of a nave and chancel; the nave is 39 ft. 6 in. long and 23 ft. broad, and is lighted by one window at the north side and two at the south. The chancel is 12 ft. 8 in. long and 8 ft. 6 in. broad, and is lighted by a small semicircular-headed window in the east gable. The chancel arch is much mutilated; it had three orders of arches springing from an equal number of jamb-shafts on each side; the arch members were enriched with carving, and also the capitals of the pier-shafts.

The design of the western doorway was very beautiful, and the ornamentation both chaste, ornate, and effective. A plan of this doorway will be found on plate, and a portion of the enrichments, reduced from a drawing by the late Mr. DuNoyer, in his collection, Royal Irish Academy.

THE BUILDERS' REPORTER AND THE DUBLIN EXHIBITION.

In reproducing and commenting upon the statements made by several of our correspondents in our last issue, our contemporary makes a few remarks which we do not specially wish to find fault with, as it is admitted by the writer "we have no knowledge of what the committee have done." On the part of ourselves we do not desire to retract anything we have written; but on the part of our correspondents—whose views we have to some extent adopted, though not subscribing to what they have written in detail—we wish to say a few words. "It is somewhat amusing (says the *Reporter*) to notice the tone of several of the Irish people in reference to this Exhibition, which they fancy is solely for the behoof and benefit of Irishmen exclusively." Whatever we may think or have thought, we must say our correspondents, as Irishmen and native artists and manufacturers, were led to believe that the present enterprise was to be what its name implied—an "Exhibition of Irish Arts, Industries, and Manufactures." The country was told this over and over again for several months by the promoters; and it was to wipe out "the shame and disgrace" that hung around this nation from the want of any permanent exhibition like England that the Messrs. Guinness nobly came forward to supply the want. It must be remembered that the Dublin Exhibition is not a general or an international one, and that it was not started for such an object. It was commenced, according to the prospectus of the promoters and the continued preachments of the Press of this city, to afford native talent and genius in particular an opportunity of showing what it could produce, or what the country, as a whole, could produce in the way of native arts, industries, and manufactures, *adscripti gleba*. Feeling that this was the idea and the object, we do not wonder many native artists, artizans, and manufacturers felt disappointed

at the sequel. We are not ourselves one of the narrow-minded class who would debar Englishmen or Scotchmen from participating in any benefits or advantages connected with even the most local exhibition in this island. It should be understood that the complaints of our several correspondents (some of whom were artists and others exhibitors) were in relation to the one-sidedness that characterized the whole get-up and management, and the giving away of all the preparatory work of ornamentation, fittings, &c., connected with the building, to artists and employers outside the country; and also in the matter of appointments and superintendence. This is what our correspondents complained of. Competition, open or limited, there was none, nor even a kindly offer to the resident artists or manufacturers; so wrote our correspondents, and so complained the general public. We were bound in honour and in justice to give publicity to their complaints.

The *Builders' Reporter*, from its own standpoint, views matters as they may seem to be, not as they actually are. It needs personal knowledge and residence, and a study of the situation to understand thoroughly the reasons why complaints were made on the part of many, and why such a number of people felt not only aggrieved but insulted.

This much is due to the writers of the letters published in our pages, and also to the exhibitors who declined to send their goods for exhibition, from the undue prominence given in space and position to exhibitors from the sister country. We believe native artists and manufacturers wanted no more than fair play and open dealing, and, according to their uncontradicted statements, they got neither.

CURRENT LITERATURE.

THE MAGAZINES.

Blackwood of this month has another of its smartly-written articles on the politics of the day, in which the present ministers are dealt some hard blows. "Thackeray in America" is the title of a very good paper which is entitled to general commendation. In the review of Mr. Tarne's "Notes on England" we do not agree with the critic in his estimate of the author, nor do we believe that Mr. Tarne's work is dull. We are inclined to believe it to be the reverse, and this we say without being at all influenced by its political colouring. Critics, however, like doctors, will disagree.

Fraser is a well got-up number in its present issue. It contains a short but useful contribution on "The Historical Manuscripts' Commission," well worth perusal, and an instructive paper on the "Agricultural Strike in England." "The Duties of the State" treats on government, local boards, and organization of the Civil Service—the sphere of duties belonging and the powers possessed. A poem of some merit, by Mr. Alfred Perceval Graves, entitled "Vox Vesii," and rather long, occupies the pages of *Fraser* this month.

Tinsley has some attractive papers, among which are the already noticed "Musical Recollections of the Last Century," "Gods and Galleries," and a good story, by Mr. B. L. Farjean. There is also an article on the "Horticultural Gardens, South Kensington," which possesses not a little interest. The subject of early gardening in Ireland having been recently treated in the *IRISH BUILDER*, the readers of that contribution may relish the following extract from the paper in *Tinsley*—

"At Calcutta, the Eden Gardens had more English guests than I had seen elsewhere in India. But, by the side of such an assemblage as the Horticultural Gardens often hold, there was no crowd. The Eden Gardens are very charming, their demerit being a deficiency of seats—a demerit which is not felt where the natives are the only pedestrians. These gardens command the fashionable drive, the new courts of justice, and government house. They hold, too, a Bhuddist pagoda of great merit and ugliness, and, modern as Calcutta is, at least one statue; the origin of which is

so completely forgotten, that I asked several English passers-by whose effigy it was in vain. When it was put up, its hero was doubtless too celebrated to need an inscription, but by January, 1872, he had become unknown, and was, in his bronze coat and erect attitude, a standing testimony to the evanescence of fame. Each of the public gardens I have quoted is laid out in admirable style, and contains plants and shrubs such as Europe only sees under glass. The calm, grass-covered enclosure of Omar's Mosque at Jerusalem, what were Cleopatra's Gardens at Jericho, and the plain growing the beautiful and bitter fruit on the shores of the Dead Sea, scarcely come within the category. Yet they claim to be remembered. For the first is to the Mahometan of Jerusalem what the Row, the club, and the ride is to the Londoner. He goes there for his gossip, his recreation, his repose, as well as for his prayers. What are called Cleopatra's Gardens by Jericho still retain traces of cultivation. The famous balsams are growing, and the monks from and pilgrims to the time-honoured convent of Mar Saba cut their branches to vend as walking-sticks; the prickly pears, too, tear off the horseman's hat, and so impede his progress, as to make him spur his steed and gallop through them, until he arrives heated and dishevelled at the fountain Elisha healed, there to lave his face and drink of its pure stream before turning to enjoy the glorious view towards the Jordan and the blue mountains of Moab, from Quarantania or the hill of the temptation behind it."

The *Gentleman's* contains the continued tales of Mr. Joseph Hatton and Mr. Whyte Melville. The comic writers of England is still in the hands of Mr. Cowden Clarke, who, this month, treats us to a paper on the well-known Thomas Hood, the elder, in his character of a humourist. A scientific article on the "Collision of Comets," by Mr. Carpenter, and "Disraeli: a Political Study," by Mr. Hopkins, are two contributions of a readable and instructive kind.

St. James's has an article on "A United Empire," ancient the claims of Canada. "Russian Folklore," "A Raid and Ride in Canada," and "Under the Red Cross," are all articles of merit. Sir John Bowring contributes a "Nosegay of Translations from the Poetry of other Climes." This echo of the Muses from foreign lands is interesting reading.

Temple Bar contains an article on a subject often treated, "Napoleon's Project of Invading England," but in this case it is forcibly written. "The Deceased Wife's Sister" is the name of another contribution in the form of an autobiography. This month's issue is full of stories and literature of a light nature.

Belgravia has another instalment of Miss Braddon's strongly conceived and strangely worked out story—"To the Bitter End." Mr. G. A. Sala still proceeds with his "Imaginary London," in which paper there is a good deal of truth as well as imaginative colouring. "Transatlantic Sports and Sporting Matters," by Mr. Hutcheson, and a "Fijian Newspaper," by Mr. O'Donnell, are pleasant magazine articles. The number, as a whole, is a good one.

London Society. As usual one of its chief attractions is its peculiar illustrations. Two of the principal papers of merit are Mr. Hatton's "Kites and Pigeons," a humorous contribution, and "Delphin Gray," a literary contribution, having a fanciful grace of its own.

St. Paul's has two or three papers this month of merit. Mr. Trollope's "Chapter from the Life of an Arch-Conspirator," and some poetical contributions from Robert Buchanan and Dora Greenwell are among the attractive specimens. The other prose contributions are hardly of average ability.

Colburn's Monthly is a very good number. "Boscobel," Harrison Ainsworth's historical tale, sustains its interest. The "Garden and the Spring," "Painting," and "Stray Thoughts and Stray Essays," are attractive papers; and, indeed, all the articles in this month's issue are good.

Colburn's United Service for this month, among other papers, has two able articles, "Considerations on the Tactical Limit of Infantry" and "Rossel's Art of War," by Captain Glyn. Military students, or even veterans in the service, will find food for thought and practice in these two papers.

ARCHITECTURAL ASSOCIATION OF IRELAND.

Now that an association, having for its object the drawing together of the junior members of the architectural profession, is established, we trust that its career may be long, and its mission eminently useful. The want that existed is now supplied, and it remains with the younger members of the profession to show their earnestness by strengthening the hands of the provisional committee, and of rendering the office of the secretaries a pleasing labour. There is a wide field of labour before the infant association, and its members are free to exhibit a commendable ambition and emulate their elder brethren here and elsewhere, without developing any factious rivalry. Young minds are healthy and vigorous, are full of ideas, and the clashing together of kindred thoughts, though they may be crude and hard, will nevertheless produce some kindling sparks that will not have flashed in vain. The reading of papers regularly is beneficial, and is in no way to be deprecated within reasonable limits; but the young architect as well as the old can perhaps give a nobler embodiment of his ideas in his work. Even in the paper pattern, the *thought-out* plan and elevation can be discerned, and prove the architect as well as in the finished building that has left the craftsmen's hands. Classes, therefore, of design and construction, and the visiting of works during their progress is most useful. The inspection of architectural antiquities in the neighbourhood of Dublin, or the border counties of Leinster, is a labour too that will repay the trouble and the trifling expense that may be incurred. As we will have an occasion hereafter of alluding to and reporting some of the proceedings of this junior body, we will simply now bespeak for it the support of the classes for whom it is intended, and to supply whose wants it has been established, with a general agreement and concurrence on all sides.

CHARLES LEVER.

CHARLES Lever's death claims a notice on the part of every native publication, no matter to what object it may be devoted. On the part of this journal particularly this claim is a strong one, because, as the son of a Dublin builder, his obituary is not out of place in these pages. The father of Charles Lever, early in the present century, had his building premises not far from our present offices, at a place opposite the Dublin and Drogheda Railway Terminus. He built, and conducted work, for the Customs authorities for some years, but modern buildings have long since covered the site of the spot occupied by the elder Lever's premises.

Charles Lever was early in life articled to Surgeon Cusack, of this city, and, as a young practitioner, rendered some service at the time of the first cholera in 1832. He entered Trinity College, and obtained his degree of A.B. in 1827, and that of M.B. in 1831; the Dublin University afterwards conferred upon him the honorary distinction of LL.D. Subsequently he was attached to the British Legation at Brussels, in the capacity of physician. His "Confessions of Harry Lorrequer"—his first humorous work—was written at Brussels. It was very successful, and several others quickly followed, including "Charles O'Malley," "Tom Burke of Ours," "St. Patrick's Eve," "Jack Hinton the Guardsman," "Arthur O'Leary," "Con Cregan the Irish Gil Blas," "The O'Donoghue," "Martins of Cro Martin," "Knight of Gwynne," and several others. Some of his tales appeared in the pages of the *Dublin University Magazine*, of which he was for some years the editor. The old publishing firm of Curry and Co. were for many years the publishers of the *Dublin University Magazine*, as also of his tales, which appeared sometimes simultaneously in monthly parts with the serial issue in the magazine.

The poor *University Magazine*, although it has undergone many strange changes, has

outlived many of its early and best contributors—Cæsar Otway (the Terence O'Toole of the *Dublin Penny Journal*) Samuel Lover, William Carleton, Clarence Mangan, and many other less known writers. A few of the original staff of contributors are still upon the land of the living, and have not yet given up their literary pursuits.

The late Lord Derby bestowed the appointment of the Vice-Consulate of Spezzia on Lever in 1858, and he was transferred from thence to Trieste in 1867. Under the *nom de plume* of "Cornelius O'Dowd," Lever contributed of late to the pages of *Blackwood's Magazine*, and his writings in that journal were marked by much irony and humour. "Lord Kilgobbin," his recently published work, was his last, and there is a pathetic dedication to the volume, in which he speaks of his "breaking health and broken spirits," and hoping that the work might be his last, for that which was once his joy he found now to be associated with his sorrow.

Charles Lever was born in 1806, and was consequently in his sixty-sixth year. He died somewhat suddenly, of a disease that always terminates life suddenly—disease of the heart. He leaves some family behind him, principally daughters, but there is reason to believe that they are provided for. Unlike many others devoted to literary pursuits, Lever never was dependent on literature for a living, for his appointments were sufficient to keep him free from the usual wear and tear of brain that many literary men are subject to in the struggle of life. His friends and admirers were many, his character irreproachable, and his loss in more ways than one will be felt in literary and family circles at home and abroad.

Thus we fling our slight garland upon his grave, and as literary craftsmen and fellow-townsmen we wish him rest and immortality.

CIVIC LYRICS.—No. XV.

THE VOW OF STONYBATTER.

From Ballybough to Harold's Cross,
From Cork-hill, where the monkeys chatter,
From committees of dirt and dross,
Come hear the Vow of Stonybatter.
Too long we brook'd a civic shame,
Till plague our homes began to shatter,
And Dublin lived but in a name,
A butt and fag for Stonybatter.
Too long a clique of jobbers ruled,
And robbed us while they deigned to flatter,
Till beggared Dublin wept defoiled,
With hope alone in Stonybatter.
Corruption soon shall have its end,
And all the living prurient matter
In our Council's propped and penned,
And now dragged forth by Stonybatter.
Down, root and branch, must come the tree
Whose Upas leaves no more shall scatter
The seeds of plague and misery,
And that's THE VOW OF STONYBATTER.

CIVIS.

THE PRISONS OF DUBLIN.

In the report of the Hon. C. F. Bourke, one of the Inspectors-General of Prisons, which has been just issued, we are afforded a little more insight into the cost and conduct of these institutions, and of the gross irregularities of the Corporation of Dublin, who have the appointment of the Board of Superintendence. The cost for prisoners, medicine, superintendence, &c., exceeds all other gaols in Ireland, and while the number of officers are monstrously out of proportion with the number of prisoners they have to look after. The daily average number of prisoners in Belfast gaol in 1870 was 271, and the cost of the official staff was £1,961 12s. 9d. In Richmond Bridewell the average number of prisoners was only 264, while the expense of the staff was £3,192 8s. 7d. There are 34 officers employed, which is very large in proportion to the number of prisoners. The medical department is also far more expensive than in other gaols. In Antrim gaol, for example, the cost of medicine for 270 prisoners was only £30 7s. 10d., whereas in the

Richmond Bridewell the medicine cost £80 per annum. In the county Cork gaol the cost is only £8 2s. 7d. for a daily average of 144 prisoners, and in the Cork city gaol it is only £14 3s. for 134 prisoners. Illegal gratuities have been made often contrary to the warning of the inspectors, and we need but instance the fact that the late local inspector, Mr. Gavin, was voted by the board £35 in addition to his superannuation allowance in 1871, and also £101 5s. for supposed arrears, dating back for three years. These illegalities must be made the subject of a Government investigation, along with some others now going on. Is it any wonder that the city is saddled with an enormous taxation? Prisoners that ought to be kept at hard labour in picking oakum, or breaking stones, are, through bad management, allowed to escape the penalty of the law. The streets of our city are swimming in mud, and loose stones are cast upon them in any shape, unbroken, and carted away again with the scavenging. Although the Inspector-General suggested some useful labour that might be advantageously performed by the criminals, the Board of Superintendence paid no attention to the advice.

We have no hesitation in saying that among the Board of Superintendence and the Corporation there are greater criminals than those under sentence, and ones more deserving of penal servitude for their participation and connivance in the wanton jobbery, robbery, and taxation that disgraces the local rule of this city.

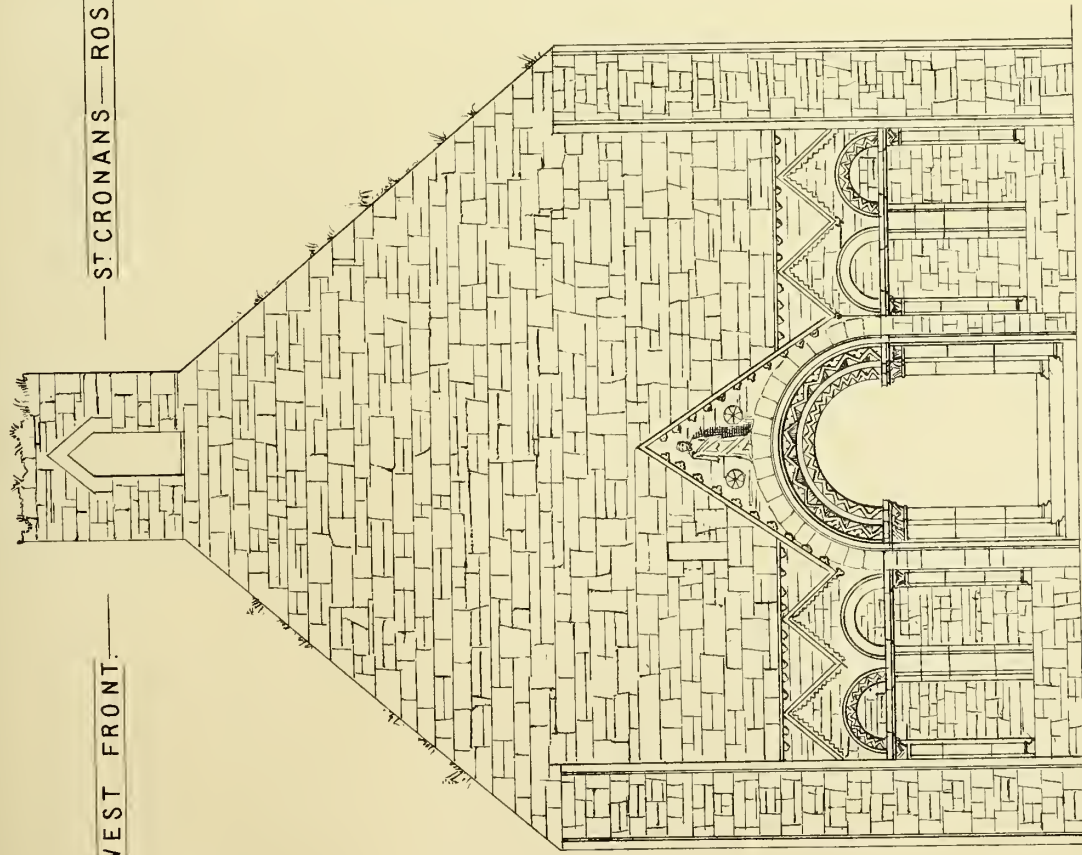
BELFAST CHURCHES.

WITHIN a few years upwards of twenty new churches have been erected in Belfast and its vicinity. Amongst those recently finished we may mention St. Enoch's, at Carlisle-circus. This is, we are informed, the largest church in connection with the Presbyterian body in Ireland, having comfortable sitting accommodation for over 2,500 persons. Mr. A. T. Jackson was the architect.

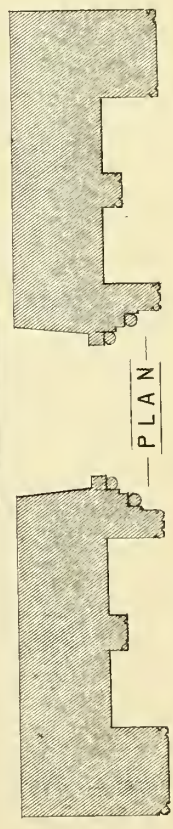
On Saturday afternoon Sir Edward Coey, J.P., D.L., laid the first stone of a new church at Donegall-pass. The building will occupy an admirable site on the south side of the Pass, at a short distance from its junction with the Ormeau-road. The ground plan may be described as an oblong of 62 feet in length and 43 feet in width, with a projection at the side, towards Donegall-pass, of 37 feet by 12 feet. The main entrance door will be in base of tower, which is 17 feet square, and stands at north-east angle next Ormeau-road. It will rise in a simple unbroken line without projections to a height of 70 feet, where the eaves will be broken through by a lofty two-light traceried window, rising on each of the four sides of the belfry-stage, and each of these covered by a high-pitched gablet, the barge course of which will finish in a carved stone finial. The roof of the tower will be covered with small Cumberland slates, and terminated by a wrought-iron vane at a height of 140 feet from the ground. Behind the tower a vestibule 9 feet wide will occupy the remainder of the east gable, having a doorway into porch, which is in base of tower, and another entrance door from lane at the rear. A third entrance door is likewise provided at the extreme west end from Donegall-pass. The gallery, which will occupy the east end of the church, is approached by an easy staircase from the vestibule, passing through the tower. Abundance of light will be given by windows on both sides, and these are grouped in couples and in triplets to suit their several requirements. The gallery has also a large traceried wheel window in the east gable above the vestibule. Each of the three bays, into which the projection before-mentioned is divided, has a window at a high level, the pointed head rising into their respective gables, and filled with plate tracery. All lights will be filled with tinted glass, in lead quarries. The roof of the church is open to the level of the straining beam of the principal frames, which have wrought and moulded

WEST FRONT.

ST CRONANS—ROSCREA



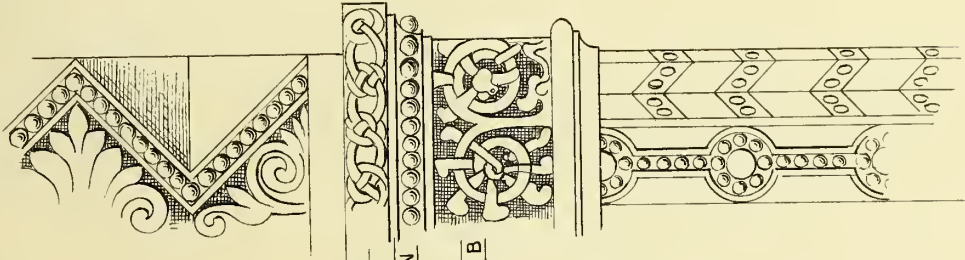
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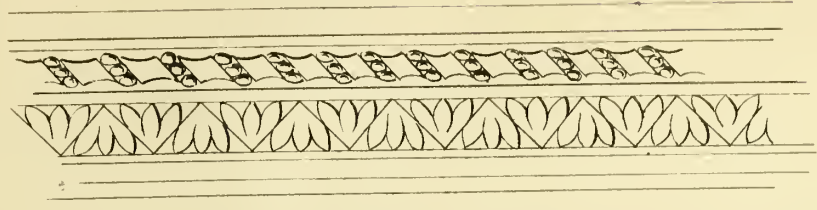
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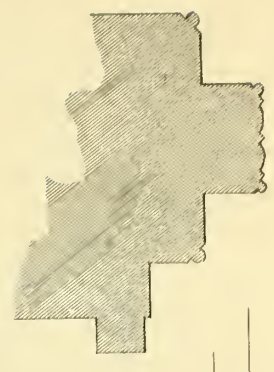
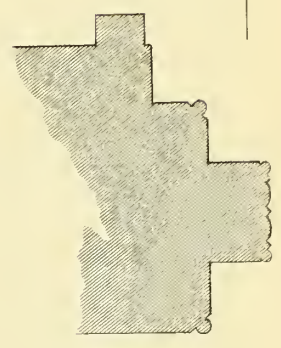
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OF PORTION
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INSIDE JAMB



DETAIL
OF PORTION
OF
OUTSIDE JAMB



DOORWAY
DONOUGHMORE
CHURCH



THE LIBRARY
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timbers. Where the roofs of the projecting bays meet the main building the supporting frames rest upon coupled metal columns, which also support an arcade of three arches in line with the north side wall. The ground floor will have sittings for 580 persons, and the end gallery will accommodate 186 more. A raised platform, with reading-desk projecting slightly in centre, is provided at west end for minister, and behind this an arched recess to assist the transmission of sound. All the wood-work in the interior of the church will be of selected pitch pine varnished. In the architectural treatment of this building, for which Gothic of an early type has been adopted, simplicity of parts and details have been studied rather than using ornament of an elaborate character. At the main entrance under tower, however, a somewhat more ornamental treatment has been exhibited. Here a wide and lofty pointed arch, covered by a carved label moulding, and having soffitt moulds also covered with fruit and foliage of Eastern plants, springs from nook shafts at either side, having moulded caps and bases, and encloses two doorways divided by a central pier, with engaged column of polished granite. The tympanum above these is filled by a circle with moulded and carved borders, and pierced with trefoiled lights, and the spandrels carved with symbolical foliage. The whole of the exterior walling is of neatly-jointed Scabro sandstone rubble, with the dressings of windows, &c., tooled. The church, when completed, will cost £2,300. The architects are Messrs. Young and Mackenzie; the builder is Mr. Robert Corry.

L A W.

"ANCIENT LIGHTS."

COURT OF CHANCERY APPEAL—June 3.

(Before the Lord Chancellor and the Lord Justice of Appeal.)

Robb v. Connor.—Their lordships delivered judgment in this case, which was argued before the court last Hilary Term. The bill was filed by the plaintiffs, who are the owners of No. 11 Castle-place, Belfast, in which they carried on trade as wholesale and retail drapers, to restrain the defendant from erecting any building on the piece of land in his possession, situate on the east side of the plaintiffs' premises, which would obstruct the free access of light and air to the ancient windows of the plaintiffs. There were ten ancient windows in the east side of the plaintiffs' premises, and they alleged that the buildings, which formally stood upon the defendant's ground, were 24 ft. distant from plaintiffs' premises, and of a mean height of 26 ft., but the buildings which the defendant had recently erected there varied in height from 57 ft. to 64 ft., and so obstructed the plaintiffs' light as to interfere with their business. The case was first heard before the Master of the Rolls, and in July last his honor delivered judgment, dismissing the bill with costs, on the ground that there was not such an obstruction of the plaintiffs' light as would warrant the court to interfere by injunction. The plaintiffs' appealed from that decision, and during the argument on the appeal it was thought desirable that some architect should visit the premises, and say whether, in his opinion, the defendant's building affected the plaintiffs' light in such a manner as to interfere with the ordinary course of their business; and whether the defendant's building cast reflected light into the plaintiffs' room so as to render it less useful for the purposes of business than it was before. Mr. John McCurdy having being the gentleman selected to visit the premises, he did so on the 19th and 20th March last, and was examined afterwards in court, when he stated that, in his opinion, the defendant's new building very slightly overshadowed the plaintiffs' windows numbered 1, 2, and 3, but had no effect on the other windows; that it would diminish the access of light to said windows 1, 2, and 3 in a trifling degree, but

it did not affect them so as to deprive them of the light necessary for ordinary business purposes, and that the new building did not cast reflected light into the plaintiffs' building so as to interfere with the ordinary use of the building.

Their Lordships now severally delivered judgment, affirming the decision of the Master of the Rolls, and dismissing the appeal with costs.

The Solicitor-General, Messrs. Jellett, Q.C., and Bruce were for the plaintiffs. Messrs. Law, Q.C., and W. D. Andrews for the defendant.

The plaintiffs in the above case will naturally conclude that they have been harshly treated by the decision given, and again confirmed on appeal. We know there have been many actions resulting from the question of "ancient lights," where those who claimed compensation for injury were awarded their claims, though the amount of injury they suffered was *nil*. On the other hand, we have known cases where real injury was suffered, by the deprivation of light and air in consequence of new buildings being erected, completely overshadowing the premises of the aggrieved neighbour, and greatly interfered in the conduct of his business, yet the law allowed him no redress. In the case of *Robb v. Connor*, of course we have no personal knowledge of the circumstances, yet, viewing this case and others combined, which have lately come under our notice, we are of opinion they are questions more suited to be settled by a practical common-sense arbitration on the part of professional men, than by an appeal to law. Legal decisions may be an accordance with Acts of Parliament or the strength of the evidence adduced, but the evidence may be anything but impartial. The loss of light and the prevention of the free access of air to any premises where human beings reside, as well as carrying on business, is a misfortune and a misfortune that may carry along with it a serious danger.

BAIL COURT, LONDON.—June 6.

The Queen v. the Registrar of Friendly Societies and others.—The Amalgamated Carpenters and Joiners.—The annexed report, relating to the question at issue between the Amalgamated Society of Carpenters and Joiners and the Executive Council, will prove somewhat instructive to Trade Societies in Ireland.

Occasions have arisen, and may yet arise in this city, on the question of registration, and it is well that all parties may know the law of the case where rival claims exist.

In this case a rule had been obtained by the executive council of the Amalgamated Carpenters and Joiners in London, calling upon Mr. Stevenson, the Registrar of Friendly Societies, and Mr. Fryer and Mr. Thompson, members of the general council in Manchester, to show cause why a mandamus should not issue commanding Mr. Stevenson to register the branch of the society in the name of the Amalgamated Society of Carpenters and Joiners. The society comprised 242 branches, with an executive council in London of seven members, and a general council in Manchester of ten members. The funds were left in the hands of each particular branch, and each distributed its own funds, subject to this, that if great distress happened in any district, the more prosperous districts contributed to the funds of the former. On the 18th March, 1871, differences arose between the executive and general councils, when the executive council took forcible possession of the books and property within their power belonging to the society, but the branches were able to retain their funds. After that an expression of opinion of the society was taken, which resulted in 222 branches out of the 242 supporting the general council, of the funds £21,916 followed the general council, and only £3,115 the executive council, and out of 10,000 members but 1,300 supported the latter. This society being in restraint of trade they were only able to register their rules for the purpose of settling differences that might arise between them. On the 29th June, 1871, some weeks after the separation, the Trades Union Act passed, whereby it was enacted that no trade union could be registered under a name identical with that of another, or so near the name as to be likely

to deceive the public. On the 5th of August both parties applied to be registered separately in the name of the Amalgamated Society of Carpenters and Joiners, and in consequence of that enactment Mr. Stevenson refused to comply with the request. On the 8th December, 1871, the Secretary of State for the Home Department issued rules under the Trades Union Act, one of which was that the registrar should not register a trades union under a name identical with that of any existing trades union known to him, whether registered or not, or so resembling the name as likely to deceive the general members and the public. On the 23rd December the executive council, and on the 30th December the general council, renewed their applications for registration in the same name, but Mr. Stevenson again declined to register either.

Mr. Henry James, Q.C., and Mr. Besley showed cause against the rule; Mr. McDonald supported it.

Mr. James contended that the registrar had acted rightly. Both under the clause of the act and the rules issued by the Home Secretary he was bound to refuse registration under the circumstances. He was ready to let the matter stand as it was, but if the executive council wished to be registered they must alter, however slightly, the name of the society. If they were to be registered in the identical name of the old society they would be able to claim the whole of the funds, and in all probability be able to harass the other branches with reference to the money they had legitimately expended, if not make them repay the whole of it. There could be no doubt that it was an attempt on the part of the executive council to snap the funds by means of registration.

Mr. McDonald, in support of the rule, contended that the registrar had no power to refuse to register the executive council as the original society, and that the rules made by the Home Secretary were in excess of his authority, as they imposed upon the registrar, who was merely an executive officer, the duty of importing his own personal knowledge into the matter.

Mr. Justice Blackburn said there was no real hardship in the case. All the parties had to do was to make a slight alteration in the name of the society, and then they would be entitled to registration. This court had nothing to do with the merits of the case, and for that they must refer them to Chancery. The registrar had properly exercised his jurisdiction, and the court would not interfere.

The rule was therefore discharged.

POKER AND TONGS.

THE *Mud Island Chronicle* and the *Dirty-lane Gazette* have fallen foul of each other again. Talk of American journalism! why James Gordon Bennett was only a pinkie in the "verdant mud" compared to the wriggling eels who seek their inspiration in the filthy waters of the Puddle. It is both a source of amusement, not unmingled with contempt, to the citizens of Dublin to have such a worthy pair in their midst. Of course the *Mud Island* organ is an exposition of mud, and the *Dirty-lane Gazette* a representative of dirt; and, as the proverb says, we cannot expect a "silk purse out of a sow's ear."

It may be asked, "Have not the public a remedy in their own hands, by ceasing to patronize such filthy receptacles of abuse, and such willing publishers of swindling quack literature? Between the dish-cloth in Prince's-street and the pot-rag in Abbey-street, there is certainly nothing to choose—they represent nothing but the public characters and the public opinions of their proprietors, which have undergone, within the last decade, as many changes of hue and colour as the ribs in the rainbow, and are yet quite susceptible of a great many more. Happy pair! advocates of bubble schemes, publishers of filth and fraud, patrons of quacks, dealers in mythical correspondence, the worst punishment the magistracy of this city, who may be interested in its sanitary purification, could inflict upon you both would be to compel you to speak the truth even through one single impression of your filthy organs. The injunction would doubtless be the ruin of both of you; for washing a black man white would be a less difficult task than purifying the columns of the *Mud Island Chronicle* or the *Dirty-lane Gazette*."

TOPOGRAPHIA HIBERNICA.

PART SECOND.

It is a source of regret to us, and to this country generally, that, when the trigonometrical survey was commenced for Ireland, the original intention of the committee was not carried out in its integrity to the end. The Imperial Government, always niggardly in its assistance, and also owing to the several changes in the administration, interfered, no doubt, greatly with the work of the survey, and led to many changes and a serious curtailment in the first grand design. After some years the Statistical Memoir was discontinued, and of all the counties in Ireland, Derry alone can boast of a really complete survey of historical value.

The first proposal was, that each county should have one or more volumes devoted to its local history, antiquities, the state of its agriculture, manufactures, mines, fisheries, the past and present state and occupations of its people, the natural history, including geology, zoology, and the undeveloped resources, and the best means of extending and utilizing them. The volume devoted to Derry was prepared with this view; consequently it is a valuable one, not only in a valuation sense, but in a historical one.

The survey which actually commenced in 1826 was carried on under the superintendence of Colonel Colby and Captain Larcom; it was begun by measuring a base line of five miles near to the shore of Lough Foyle, and from thence triangular measurements were made by the theodolite, extending over the whole surface of the island, embracing all the chief points of mountain, coast, and other features, which were ascertained. This preliminary work appears to have been pretty accurately performed, for, by an astronomical measurement, in the distance between Dublin and Armagh the difference from that calculated by the Ordnance triangles amounted to only 4 ft. When the large triangles were completed, next followed a detailed survey of the baronies, parishes, and townlands of the different counties, the field books being forwarded to the central station at the late Mountjoy Barracks, Phoenix Park. Here they were sketched, engraved on copper, and printed, the first county published being that of Derry, in 1833.

The whole of Ireland is now mapped to a scale of six inches to the mile, which must be said to be a magnificent scale. England, with the exception of six of the northern counties, and those of Surrey and Middlesex, are only on a scale of one inch to the mile. In Scotland the plans of all the towns and of nearly all the cultivated ground are on the six-inch scale, the same as Ireland. The gigantic survey of London has recently been completed on the scale of five feet, or sixty inches, to the mile. Dublin has also had her map engraved previously to the enormous scale of five feet to the mile, and this map represents the shape and space occupied by every house, garden, and yard in the city at the time it was made. This map contains antiquarian lettering, and all the houses are numbered. In the preparation of the townland or six-inch survey, the late Messrs. Petrie, Donovan, and O'Curry rendered valuable and important service; and their aid was indispensable to this work, particularly on account of the numerous Irish names of localities occurring, and of disputed definitions. The above Celtic scholars corrected the names; and as they were employed afterwards during the survey, their service was in many respects invaluable. The maps comprise the county, barony, parish, townland, and glebe boundaries, names and acreage, names and representations of cities, towns, demesnes, farms, collieries, forges, limekilns, bleach-greens, tanneries, ruins, wells, rivers, roads, weirs, locks, bogs, churches, chapels, &c., and the number of feet of every swell or elevation of surface of note, and every cabin is also marked.

It is a great pity that the geology and the natural history of the country were not attended to. The commissioners indeed

recommended that geology should be investigated and published, but not by the topographical surveyors, nor in counties, but by the instrumentality of a special board; they also advised that the statistics should be entrusted to a statistical staff, to be permanently kept up in Ireland. The office of Registrar-General did not exist until long after the survey of Ireland was commenced. The Act in England only dates back to 1837, and that in Ireland is only a few years old. The design of the committee of 1824 was to leave the whole survey to the Board of Ordnance, and the valuation of the country to the Engineers.

Viewing the completed survey (if we can call such a work complete) at the present day, it must be allowed that Ireland is pretty well mapped out for valuation purposes, and possibly for military ones also. For educational, statistical, and historical purposes, we, however, need fuller information, and we lack that useful knowledge that could be conveyed in many useful county histories, not alone on its antiquities, but in relation to its industrial resources, past and present, and the methods that might be taken to extend them.

We will now take a look back, according to promise, for the purpose of enumerating the list of the early county maps and charts relating to Ireland:—Wicklow, by Jacob Neville, in 1760; Kildare, by Major Alexander Taylor, in 1783 (scale one inch and a-half to a mile); Clare, by Henry Pelham, in 1787 (scale one inch and a-half to the Irish mile); Antrim, by John Lendrick, in 1780; County Down, by Williamson, 1810; Kerry, by Pelham; ditto, by Porter; County Louth, surveyed by Taylor and Skinner, in 1777 (scale two inches to one mile); a Survey of Louth, by Mr. John M'Neil; County Armagh, surveyed by John Rocque (scale two inches to one mile),—states the impossibility of finding the barony bounds, and had recourse to Sir William Petty's surveys; Cork, surveyed by Edwards and Savage, in 1811; Derry, by the Rev. G. V. Sampson, in 1813, accompanied by a statistical memoir,—sections on the maps (scale two inches to one mile); Longford, surveyed by William Edgeworth,—this map was constructed on trigonometrical data; Roscommon, by Messrs. Edgeworth and Griffith,—this survey is a trigonometrical one, and engraving was executed in a superior manner; County Down (scale one inch to the mile); published in 1755; Hills drawn in profile, no surveyor's name,—it has soundings along the coast; Wexford, surveyed by Valentine Gill, four sheets. Since 1800 the following counties were surveyed by William Larkin:—Westmeath, Meath, Waterford, Leitrim, Sligo, Galway, Cavan; scale of the published maps, two inches to one mile. These surveys of Mr. Larkin were protracted from a scale of four inches to one Irish mile, but it is said not to be constructed from triangular measurements. Kilkenny was surveyed by Mr. David Aher in townlands; and, according to Mr. Bald's evidence, alluded to in our last notice, Limerick, King's County, Donegal, Fermanagh, Monaghan, Carlow, Queen's County, Tipperary, and Mayo were all surveyed in one form or another previous to the Ordnance Survey.

Respecting charts, there is one of Dublin Bay, by Seal and Richards, 1765; ditto, of Dublin Bay, by Captain Bligh; ditto, of the Shannon, by Cowan, 1795 (two inches and a-half to an Irish mile); Chart of Kenmare River, by William Irwin, 1749. Mr. Murdoch M'Kenzie made a general survey of the harbours, bays, and shores of Ireland, on a scale of one inch to the English mile, accompanied with general charts, in two volumes. This work appears to have occupied a period of sixteen years, viewing the date of variation in 1759. Subsequent chart-makers have copied the soundings on M'Kenzie's charts, his sailing directions being considered valuable, though the outline of the coast is faulty.

The Fishery Board published several charts of the harbours on the east coast of Ireland. These were surveyed under the direction of Mr. Nimmo, and are excellently engraved specimens of hydrographic surveys. There

is a chart of Lough Derg by Longfield and Murray, and there is also a chart of Lough Ree. We must not omit to mention that there was a survey made, by order of the Irish Parliament, for military purposes, at the head of which was General Vallancey assisted by Colonel Tarrant and Major Taylor. It appears to be a rather slight or indifferent one, for the witnesses who were examined, in 1824, speak rather disparagingly of it. It had its uses, however. In 1745, when the Stuart rebellion was suppressed in Scotland, military roads were constructed in that country to open up the fastnesses, both for commercial and military purposes. The survey of the forfeited estates of Scotland led to the foundation of a school rather in advance of that in Ireland, as its pupils used the theodolite, &c. Belonging to this Scotch school were Messrs. Taylor and Skinner, who surveyed the roads of Ireland, Scotland, and a part of England, while other members of the same school made the post-office road surveys. We here may mention that Messrs. Griffith, Edgeworth, Aher, and M'Neil were Irishmen; Vignoles, an Englishman; and Nimmo and Bald, Scotchmen. All these men performed useful and valuable service in this country, and the Bog Maps may be instanced as valuable topographical works, being to a scale of four inches to the mile. Mr. Vignoles's surveys for the railway commission were admirably done. Mr. Bald's fine map of Mayo, shaded and lithographed in a superior manner in Paris, is accompanied by raised models showing the actual shape of several parts of that county. It is on a scale of four inches to a mile. For the Board of Works, Woods and Forests, Shannon Commissioners, and other public bodies and departments, several surveys and maps were made by the above-named gentleman. Mr. Griffith and our other native practitioners executed a large portion of the work. The general map of the Railway Commissioners was made at Mountjoy Barracks, and is a large-sized map of Ireland, shaded according to the slopes of the land, and has been commended for its general accuracy.

The first sheet of the Ordnance Map of England, on the one-inch scale, was published on the first day of the present century, and the last sheet made its appearance on the 1st of January, 1870, exactly sixty-nine years afterwards. The earlier maps have been corrected and re-engraved from the later surveys. In addition to the various topographical and military maps, there is a geological map of the United Kingdom to which great importance must be attached. It is engraved on duplicate plates on the one-inch scale.

Very few people give a moment's thought to the extraordinary amount of work that has to be performed in carrying out the survey of a country, and the labour that the surveyors and their assistants undergo in winter and summer—frost, snow, sunshine, and rain; over mountains and swamps; through forest and glen. The officers of the Royal Engineers and the men of the Sappers and Miners do the outside work, the inside being committed to the civilians.

In England, the survey was not carried on while the crops of wheat, oats, barley, &c., were standing, the operations of the surveyors during this season being transferred to the uncultivated districts and grazing counties, where measuring and tramping about can do little harm. In Scotland the surveying staff have had tough work on account of the great amount of mountain district, and in consequence of the heights being covered with snow. In October they had to cease their labour in the mountain districts of Scotland, leaving the Highlands and returning to England, and pursuing there, during the winter months, their unfinished work.

From a statement made, we find that surveying on the six-inch scale costs the country £18 13s. 4d. per square mile; on the scale of 1-2,500th, £32; engraving on the six-inch scale, after the surveying and drawing, £2 13s. 4d.; engraving on the inch scale, 1s. 3d.; reducing from the scale of 1-2,500th

to that of six inches, 7s.; and from the six-inch to the inch, 2s. Considering that very lately there were 84,000 square miles still to be surveyed, it may be guessed what the eventual cost will be. There are nearly 2,000 persons employed altogether in the completion of the survey of the United Kingdom. The work that the staff have to do outdoors, and what has afterwards to be performed indoors at their offices at Southampton cannot be otherwise than very expensive. Major-General Sir Henry James is the director of the Ordnance Survey of the United Kingdom, and he has added to his labours a very useful work. By the aid of photozincography he has produced reductions of large plans of the Ordnance Survey to maps of small size for publishing. By this process he has produced *fac similes* of the Domesday Book, from volumes of the National Manuscripts of England, two volumes of the National Manuscripts of Scotland, 750 copies of an extract from Archbishop Parker's Register, and the whole of the black-letter prayer book of 1688. The latter two works were reproduced for the use of the Ritual Commission. The photozincographic *fac similes* of English Manuscripts range from the reign of William the Conqueror to the date of Queen Anne. Sir Henry James is director of the Topographical Department as well as of the Ordnance Survey.

A series of specimens of the National Manuscripts relating to Ireland have been ordered by the Master of the Rolls to be reproduced by the photozincographic process, and Mr. J. T. Gilbert has made selections for the purpose, to be executed at Southampton.

In another paper we will furnish some additional details concerning the Topographical and Ordnance Surveys, and of the early topographical notices and sketches that have appeared in native publications towards the end of the last and early in the present century.

DUBLINIENSIS.

THE LATE CATTERSON SMITH, R.H.A.

In the fields of native art and literature, old and familiar faces are fastly dropping out of sight, if not out of recollection. The name of Catterson Smith has been for many years one very well known in all art and literary circles in Ireland, and in the annual exhibitions of the Royal Hibernian Academy we always had the pleasure of finding one or more of his charming portraits. Either in his early character of associate, member, or more recently that of president of the Hibernian Academy, he was equally respected. Our native resident artists are dwindling down to a very small circle indeed, and we can ill spare a thinning in the ranks. Mr. Smith had been for some weeks engaged in the arrangement of the pictures and collection of paintings for the opening of our present Exhibition, and some have attributed his sudden illness to the anxiety and worry he experienced in endeavouring to complete his allotted task in time. Left to himself and uncontrolled, matters in his hands would have moved on more smoothly, but unfortunately he was struck down in harness, and his lips are sealed. He was not fated to see the opening of the Exhibition that he worked so hard and so zealously to make creditable by a judicious arrangement of its collection of paintings. His remains now lie interred in Mount Jerome Cemetery, and, as is usual in this country, the sympathy that an artist ought to receive in life is deferred until the cold clay rattles on his coffin-lid. Among the chief mourners at his funeral were his six sons, and the following gentlemen, including some of his personal friends and admirers, accompanied his remains to the grave:—Lord James Butler; John Stirling Butler, R.H.A.; Thos. Bridgford, R.H.A.; Tankerville Chamberlain; W. Chaffers; H.

Doylo, R.H.A.; Thomas Drow, R.H.A.; V. Delaney; Judge Woulfe Flanagan; Thomas Farrell, R.H.A.; Sir Arthur Guinness, Bart.; Edward Cecil Guinness; Chas. Grey, R.H.A.; Alfred Grey, R.H.A.; Andrew Greaven; M. Angelo Hayes, R.H.A.; John Hamilton; W. Lano Joynt, D.L.; J. C. Kelly, J.P.; Dr. Evory Kennedy; Edward Kinahan, J.P.; Joseph Kirk, R.H.A.; J. Stewart Kirk; Rev. F. J. Lucas, A.M.; J. F. Switzer, J.P.; J. V. Mackey, J.P.; Arthur Mayne, A.R.H.A.; William Ogilvey, D.L.; Dr. Owens, J.P.; Alderman Purdon; John St. John; B. C. Watkins, R.H.A.; — Wilkins; Tristram Kennedy; Charles Lennon, &c. We trust that the last formal tribute of respect will not be the only recognition the deceased artist merits, but that some testimony of his worth and to his memory will be forthcoming on an early occasion in this city, with which his name has long been creditably associated.

FINE ARTS—JOHN BROOKES.

A COLLECTION of old English porcelain and pottery, comprising a great many rare and beautiful objects, was disposed of at the sale rooms of Messrs. Sotheby, Wilkinson and Hodge, London. They were the property of a well-known collector, and were manufactured at the early manufactories that existed at Battersea, Chelsea, Bow, Bristol, &c. Respecting these rare old objects of china or porcelain and pottery, it is not generally known that Irish artistic genius to some extent contributed. At Chelsea some Germans early in the last century established a manufactory, and they afterwards removed to Derby, or a portion of them, where the work was carried on for some years, but eventually died out. Here is a fact, however. John Brookes, a clever but unfortunate engraver who carried on his art for some time on Cork-hill, Dublin, left this city for London. At what precise period he left our shores, we are unable to find. On his arrival in London, he produced specimens of that art which afterwards added so much to the beauty and value of porcelains—namely, the painting in enamel colours to burn on porcelain, &c.

Sir Theodore Jansen, who was Lord Mayor of London, on being shown some of these specimens, conceived it would be a national advantage to embark in the manufacture. York House, at Battersea, was taken and fitted up at considerable expense, and the work for some time proceeded with. Another Irishman, who was both a designer and an engraver, of the name of Gynn, was employed in conjunction with a Mr. Hall. The subjects chosen for representation were stories from Homer's Ovid, and the beauty of the design and engraving, and the novelty of the execution were generally admired, and the objects produced were much sought after. Sir Theodore Jansen's manufactory, however, came to grief after a while, and the fault of the ruin that overtook the owner is attributed in a great measure to the negligence and bad habits of Brookes, to appear to have been greatly addicted to drink. The career of Brookes otherwise was a most chequered and extraordinary one, and his end, which we may describe on another occasion, was consistent with his life.

In justice, however, to John Brookes, who, though not a first-rate artist, yet the country is indebted to him, for through his instructions we are indebted for two celebrated mezzotinto engravers, M'Arden and Richard Houston. Both were apprenticed to Brookes. Houston like his master was also remarkably unfortunate, owing to similar causes.

The following were the more important subjects disposed of:—

BATTERSEA AND OTHER ENAMELS.—A time-piece, mounted in ormolu, on a Vernir Martin stand, an étui case, and a bonbonnière. 12 guineas. (H. G. Bohn.)

Part of a dinner service, painted with bouquets of flowers, with gold edges, each piece marked with a B in monochrome; comprising a pair of sauce

tureens and covers, two pairs of flat bowls, and thirty-two plates. 17 guineas. (H. G. Bohn.)

Bow.—A pair of vases, with scroll handles, painted with groups of flowers, imitation Dresden mark, and an octagonal plate, of very early manufacture. 10 guineas. (H. G. Bohn.)

A classical figure of a female, with an eagle, on a scroll pedestal, 12 in. high, mark T. O. impressed; and a beaker, painted with pyros japonica and gilt, 11 in. high. 12 guineas. (H. G. Bohn.)

A dove-cote, or square vase, decorated with fruit in high relief, and painted with butterflies and insects; glass shade and stand. £20 10s. (Dollan.)

BRISTOL.—A pair of open-work baskets and stands, Mayflower impressed pattern, painted with flowers; a quart mug, similar mark, a cross and No. 9, and two cups and saucers. £22 10s. (Attenborough.)

A coffee pot and cover, painted with bouquets of flowers, and a teapot of rare form, similarly marked and painted. 27 guineas. (H. G. Bohn.)

A cream jug, with impressed leaves at the base, painted with detached flowers, marked with a cross and No. 18; at the end of one of the bars of the cross is an arrow head—a peculiarity hitherto unobserved. And a teapot, painted with bouquets of flowers, marked with a B and No. 6. 20 guineas. (Fellows.)

CHLSEA.—A beautiful group of three figures, representing the Worship of Diana. £27 15s. (Nixon.)

A pair of figures of a gentleman, with a dog and gun, and a lady holding a basket of flowers, painted and gilt; mark, a gold anchor. 35 guineas. (Wareham.)

A pair of figures of a gentleman and lady seated in an arbour, with bouquets and candelabrum, very richly coloured and gilt. 40 guineas. (Wareham.)

A group of Time clipping the wings of Cupid, after Vandyke. 50 guineas. (Wareham.)

A suit of five vases with blue and gold borders, the bowls enamelled with flowers on a gold ground, and painted with subjects from the poets in oval medallions, and scenes on the Thames on the reverses, each marked with the anchor in gold. The subjects of the centre vase are "Celadon and Amelia"; on the reverse is seen the "Round Tower of Windsor Castle." On the two smallest are subjects from Shakespeare's plays of "Cymbeline" and "As You Like It," and on the remaining pair, which are ewers, are figures of Damon and Musidore. And a vase, with scroll handles, with figures after Boucher. £650. (Jackson.)

A vase, with a pierced neck and cover of the richest glos-bleu ground, enriched with gold flowers and foliage, chased, and painted with subjects of the "Death of Adonis" and the "Birth of Bacchus," in enamel on oval medallions, on a detached stand, on which are painted "Cupid Wounding the Wild Boar," and other subjects, in compartments, marked with the anchor in gold. Height, 17 in. This unique work of the Chelsea manufactory was made under the direction of Spremont, about 1760, and is, undoubtedly, the finest example known, rivalling the most precious of the contemporary works of Sèvres. £1,460. (Wareham.)

EARLY ENGLISH POTTERY.—A mug of supposed Fulham porcelain, by Dwight. (From the papers of Dr. Dwight it is evident that he succeeded in making a species of porcelain as early as the end of the 17th century. No specimen of this ware has yet been identified, but it has been thought that his Fulham mug may be an example of this unique manufacture. The handle of this mug has been submitted to a chemical analysis, and Professor Church says: "The presence of nearly 5 per cent. of soda in this porcelain distinguishes it from all other varieties." The paste may be said to be semi-transparent, which was the case in the ware described by Dwight.) A jug of old Fulham ware, dated 1707, and a Bristol dessert service. 42 guineas. (Attenborough.)

OLD WEDGWOOD.—A fine oblong vase, with figures in relief, by Flaxman. A plaque, with the subject of a "Sacrifice to Flora," modelled by Flaxman, on gilt stand. Exhibited at Leeds. £35. (Willett.)

A large vase and cover, blue ground, with ornaments in relief, by Adams, and a pair of large plaques, by Turner, with classical subjects, in cream colour. 18 guineas. (Attenborough.)

OLD WORCESTER.—A vase and a pair of beakers to match, painted with exotic birds in medallions, on a blue scale ground, square mark. A set of four open-work baskets and a dessert service. 55 guineas. (Attenborough.)

A splendid jug, with a mark under the lip, blue scale ground, painted with exotic birds and butterflies, in scroll-shape medallions, with rich gold border, and a border of green and gold on the inside. 12 in. high. Square mark. The finest example known. £101. (Prentice.)

The whole realized £3,450.

FROM NEW YORK.

REFERRING to the plans sanctioned by the Legislature for Rapid Transit in New York, the *Herald* says:—Now that Governor Hoffman has signed two bills passed by the Legislature which promise rapid transit to New York, we wish to see the corporations in which the proper powers have been conferred get speedily to work. The west side three-tier plan seems a very ambitious and hazardous experiment, but if its projectors mean business let them set about their undertaking at once. This complex system, which provides for a freight tunnel under ground as the lowest tier, a horse car line on the level of the streets as the second tier, and a four-track steam engine road, on iron arches, above the street level, as the third tier, proposes to run through the blocks and gain a triple transit to the upper end of the island. It is not exactly what we would prefer in this direction—namely, two simple viaduct roads, one on the east and the other on the west side of the city; but as something passed into a law we accept it, as the city would have been obliged to accept the charter of the Seventy if the Governor had not wrung its complicated neck. We now look to the corporators for a speedy commencement and vigorous execution of their pretentious plan. New York will not be slow to award praise to and lavish profits on the first line which will take the city toilers as far north as Harlem in fifteen minutes.

The Vanderbilt Tunnel Road bill, also signed by the Governor, has had weighty advantages given it by the Legislature; advantages for which we fail to see completely the compensating public benefit, and in which the travelling public, in whose interest it is supposed to have been drawn, will be placed to a great extent at the mercy of railway rapacity. But, although it is intended much more as a freight feeder for the Hudson River and New York Central Railroads, and although Commodore Vanderbilt will be at liberty to charge passengers going farther north than Fifty-ninth-street as much over ten cents as he pleases, we want to see the road as speedily as possible in working order, from its future depot at City Hall Park up to the Harlem River. It is to be feared that it will not be, by any means, a people's line, whereby the pent-up thousands who fester amid squalor and disease down town may be carried at rates within reach of the working man to healthy homes in the upper part of the island. Yet, let it be constructed, and when we have a viaduct road on the east side and the three-tier road on the west running fast trains day and night, at low fares, it remains to be seen whether the Vanderbilt road will not be forced, for mere profit sake, to adopt a similar scale. We may here say that we have no strong faith in any other force than that of lively competition bringing about a reduction of fares. We must not forget, however, in the midst of our fare-y speculations, that not a single sod has been turned in City Hall Park and not a single brick displayed by the sky-parlor three-tier corporation. Our efforts for the present, then, must be turned to urging on those who now have the requisite authority to lose no time in giving us rapid transit in some form or another. We shall beglad to note from time to time what is being done in the matter.

A bill providing for the cleansing of the streets has also been passed by the Legislature.

HOME AND FOREIGN NOTES.

INTERESTING DISCOVERY.—A discovery of four or five funeral urns was made some days ago by some workmen on a farm near Omagh, County Tyrone. Several ancient funeral urns contained what has been pronounced to be human bones, belonging to the skull, vertebrae, pelvis, &c. They were all calcined. The urns were somewhat in the form of a bee's cap, and were made of reddish coloured earthenware. They were found overturned on a slab, surrounded by a pile of loose stones, on a hill; the soil was of a slight sandy nature.

THE DUBLIN CENTRAL RAILWAY STATION SCHEME.—Speaking of the rival railway schemes now before Parliament, and especially of the central station one—which we have already condemned as a monstrous piece of jobbery, which, if perpetrated, would utterly disfigure our city—the *Daily Express* says:—“This is one of the most fantastic and yet formidable devices ever contrived to deface the city. It is quite refreshing, however, to see the grounds upon which it is objected to before the committee. The gradients are too steep, the curves too sharp, the tunnels would not bear the weight of the tramway cars, the floors of the station and the adjoining houses would be inundated by the tide, the trains would be blocked at the station, and the terminus of the Great Southern Railway would be run into and lose its beauty. Not a word is said about the disfigurement of the city itself, and the monster

nuisance which would be created by the erection of an unsightly shed covering the whole surface of the river, rising to the height of 30 or 40 feet, and filled with muck and mire, and a perfect pandemonium of horrid sounds, of which the least hideous would be the piercing screams from trains, shunting from morning until night. If such a project as this were to pass, the pride of Dublin would be gone, and serious injury inflicted on property in the best part of the city.” The opposing lines have made out a very strong case against it; but why have the citizens been dumb?

The *Athenæum* says it has reason to believe that a corrected re-issue of Lever's complete works, with an autobiographical introduction to each novel, was in preparation at the time of his death.

ROMAN VESTIGES.—A workman engaged in digging sand on the Combe St. Reigne Farm, at Crewkerne, Somerset, struck upon a Roman urn, containing bones and a large number of copper coins, exceeding one hundred, in a remarkable state of preservation—many of them of the reign of the Emperor Constantine. On the reverse is a temple with the symbol of the sun at the top, the word “votis” between the pillars, and at the foot are the capitals “P.L.O.N.”

THE BERLIN COMPETITION.—The names of George Gilbert Scott and John Scott are mentioned as being among those who have been awarded prizes for their designs for the German Houses of Parliament.

IRISH CIVIL SERVICE.—Among the sums voted on last Monday night in the House of Commons were the following:—The votes for the Registrar-General of Births, Board of Lunacy, and Board of Supervision in Scotland; and for the establishment of the Lord Lieutenant of Ireland were passed without discussion. A sum of £250 was voted to complete the sum necessary for the Boundary Survey Department. The following votes were also agreed to:—£35,900 for the expenses of the Registrar of Births Office and the Census Office in Ireland. £76,580 for the administration of the Poor Law in Ireland. £3,526 for the office of Public Records in Ireland. £20,339 for the office of Public Works in Ireland.

THE LITERATURE OF CLOCKMAKERS.—The *City Press* reports that the library committee of the Corporation have received from the Company of Clockmakers an offer to deposit their library and collection of ancient watches and watch movements in the library. The library consists of about 300 volumes of works relating to the theory and practice of the art of clock and watch making. The specimens of watches, watch movements, clocks, &c., are of considerable value and rarity, and show the vast improvements that have been made in this branch of manufacture.

THE COMPLETION OF ST. PAUL'S CATHEDRAL.—A requisition, signed by about thirty subscribers to the fund for the completion of St. Paul's (including the Lord Mayor, Sir Wm. Tite, the Marquis of Westminster, and the Baroness Burdett-Coutts), has been presented to the Dean, praying him to call a general meeting of the subscribers, in order to afford them an opportunity of expressing an opinion on the appointment of Mr. Burges. The Dean has declined to comply with the request, and justifies his refusal in a letter addressed to the Lord Mayor. The English public will have an opportunity afforded to them yet of refusing when asked to contribute to the Completion Fund. We fear that many raven locks will be grey, the worthy Dean in the grave of his father, and the surplus funds *non est*, ere the completion of Christopher Wren's work will be really effected in accordance with the wishes of the great architect.

A CHANCE FOR IRISH ESSAYISTS.—The Swedish Government offers a prize for an essay on the best means of putting a stop to the rapidly-increasing emigration of the rural population from that country. With a lengthened Irish experience of the effects of the fastly-decreasing population of Ireland from emigration causes, we think that some of our native *litterateurs* would stand a good chance of carrying off the prize. Many of them are powerful in suggesting remedies, and of rendering them necessary.

THE DUBLIN PAVEMENT.—There is another and a warmer place than Dublin said to be paved with good intentions. Mr. Dennehy, as one of the deputation who waited on the Lord Lieutenant, some days ago, about the possibility of obtaining another loan, to pave the streets, said:—“In 1869 we spent in Macadamising and scavenging £24,595; in 1870, £23,865; in 1871, £24,242. A very large proportion of that would be saved by paving the streets.” Not a penny of it would be saved. The “Welch setts” were tried before, and laid

down in a fashion that would make the most uncouth labourer ashamed. If the Macadamising were properly performed, it would have lasted not only twice the period, but four times the period that it did. Flinging tonloads of broken stones upon the streets, without first breaking up the surface beneath, or of putting down the metal with a concrete mixture, passing over a ponderous roller afterwards to thoroughly consolidate the work—without doing this necessary work, of course the stupid Macadamising methods of the Corporation ended in disruption, mud, and lasting disgrace. Giving a public loan to such a body is but the throwing away of money. Try asphalt, ye ignoramus; but, as ye are behind the age, you might slip upon it and break your necks—a happy deliverance for this city.

ROYAL IRISH ACADEMY.—A general meeting of the Royal Irish Academy was held at their house, Dawson-street, on Monday evening. Mr. A. G. Moore read a paper “On recent additions to the Flora of Ireland.” A paper was also read by Mr. W. M. Hennessy “On a manuscript alleged to have been written by St. Columbanus of Inisceltra.”

WALKS.—In forming walks it is by no means necessary to go to the usual extravagance of making them a foot or more in depth. If rough material of any kind—gravel, brick rubbish, stone, clinkers, or even large cinders—can be procured, break it to the size of walnuts and then make it into lime concrete. The best way to do this is to first lay down upon a hard surface a three or four inch layer of the broken material, say three barrow loads; then, in the middle, put a barrowful of fresh lime and cover it with three more barrowfuls of stone. Proceed in this manner until the necessary quantity of material is provided, then pour sufficient water upon the first heap to slack the lime, and as soon as it begins to steam mix the lime, taking care to break the lumps, and stir together to the consistency of thick mortar. As fast as it is thus prepared lay it down to the thickness of three or four inches, making it quite firm and smooth as you proceed. Lay over this a coat of gravel half an inch thick, make it quite level, and leave it rough until it has a good shower of rain, then roll, and you will have as good and cheap a walk as it is possible to form—and a walk, too, that cannot wash away, however heavy the storm may pelt.—*The Garden.*

THE WASHINGTON MONUMENT.—The House Committee on the District of Columbia approve the bill appropriating 200,000 dols. for the completion of the Washington Monument. The sum of 230,000 dols. has already been expended upon the work, and 322,000 dols. will be needed to complete the shaft, while the cost of the whole work, including the shaft and “pantheon,” or base, is estimated to be 1,122,000 dols. The committee unanimously approve the plan of this monument and of the work that has been already done, and bear cheerful testimony to the energy, integrity, economy, and patriotic love which animated and governed the transactions of “the Washington National Monument Society,” and especially commend the design of building the monument by the voluntary contributions of the people of the United States.

A RECOGNITION OF VOLUNTARY SERVICE.—Sir Michael Costa had the honour of an interview with the Prince of Wales on Monday, at Marlborough House. His Royal Highness took the occasion of presenting to Sir M. Costa a massive gold ring, bearing an engraved seal of the Royal Albert Hall, with the inscription inside—“Presented by her Majesty's Commissioners to Sir Michael Costa, in return for the valuable services he voluntarily gave upon the occasion of the opening of the Hall and of the opening of the International Exhibition, 1871.” The musical arrangements on the occasions referred to were under the direction of Sir M. Costa, who composed a sacred cantata for the opening of the Royal Albert Hall.

EARLY RAILWAY SURVEYING.—The *Builder* last week gave the first portion of a very interesting “Sketch of the Early History of Railways.” Some amusing facts are given of the methods that had to be employed and the stratagems resorted to by the surveyors to carry out their surveys. Those who are strangers to how railway oppositions are got up and managed, and disinterested gentlemen are “corked up,” will be enlightened by a perusal of the paper.

SANITARY CONDITION OF IRELAND.—A deputation composed of members of the College of Physicians, the College of Surgeons, and the Irish Medical Association, waited upon the Lord Lieutenant some days since, with the object of securing the appointment of a commission before any sanitary act would be passed relating to Ireland. They were anxious that the voice of the medical profession should be heard previous to any sanitary legislation. The present sanitary acts affecting this country

were pronounced complex and in a great measure inoperative. The occurrence of periodic epidemics every decade in Ireland was alluded to, and Dr. Stokes said that himself and his brethren held the doctrine that "preventive medicine was far beyond curative." We are happy to hear this admission at last.

NEW COURT-HOUSE FOR LURGAN.—The town of Lurgan will shortly have a new court-house. By a majority of three votes, the object, which was the subject of much opposition, was decided. The plans, &c., had been prepared, and the site approved of by a committee appointed for the purpose by the Grand Jury. The ratepayers of the town of Portadown opposed the application, and presented two petitions against it, at the same time bringing forward two applications—one for £2,500 for building a new court-house in their town, and the other for £3,750 for a court-house and bridewell. The presentment for the new court-house was £4,000.

NEWCOMEN BRIDGE.—The semi-improvements in connection with this bridge are proceeding. The levelling-up and the levelling-down process begun will, we fear, not result in the thorough radical change that was necessary to be effected. Hereafter we will have an opportunity of telling how the work was or is being executed.

NEW IRON ORE COMPANY.—The North of Ireland Iron Ore Company is formed, the capital required being £200,000 in 20,000 shares of £10 each. First issue £100,000 in 10,000 shares of £10 each. The objects of the company are to take over as a going concern and to further develop the valuable iron mines near Larne (County Antrim), known as the Kilwaughter and Ballyboley Mines, in extent about 670 acres, and situated at a short distance from Larne Water. The ore extracted from these mines yields on an average about 30 per cent. of metallic iron, and derives its great value in the manufacture of Bessemer steel, from its peculiar composition, containing as it does a high percentage of alumina, a first-class flux in hæmatite blast furnaces. The quantity of ore on the mines, after making allowance for poor ground, pillars, and waste, is estimated at ten millions of tons. The directors state that by following Professor Ansted's suggestions, they expect to raise the out-put within a short period to 500 tons per day. Taking, however, the present cost of working and the low prices at which the previous contracts were entered into, as a basis, a daily out-put of 400 tons will realise a profit of £24,000 per annum, which will naturally be increased to £35,000 by the enhanced prices for the new contracts, thus yielding a dividend of 35 per cent. on the capital invested. The price of the leases, including all the plant and machinery now on the mines is £85,000, namely £60,000 in cash, and £25,000 in fully paid-up shares.

PATENT MAREZZO MARBLE.—The *City Press* of London contains a paragraph respecting this imitation marble, which must be accepted for what it is worth. It says:—An exposition of the beauty of this material, its adaptability to decorative purposes, and the mode by which it is manufactured, was given to a select number of gentlemen on Wednesday at the works of the company, and the opinion generally expressed was highly favourable. The Marezzo marble can be manufactured into every conceivable shape into which marble is or can be applied. Perfect *fac-similes* of all the different varieties of marble can be made, the colours being blended and veined in the thickness and depth of the material as in marble itself, and are not mere surface imitations, like graining, or the colours floated on enamelled slate. They can be sawn, dressed, and polished equal to the very finest and most costly marble. They are infinitely superior to any other imitation marble, and combined with greater cheapness of production the advantage of being harder, more manageable, and more easily applied.

NEW GUILDHALL LIBRARY AND MUSEUM, LONDON.

We append below the report of the Select New Library and Museum Committee of the London Corporation, drawn up by Dr. Sedgwick Saunders, the librarian. It will be found interesting, and its publication may afford our own Town Council some instruction in a direction that needs their attention, if they possess any public spirit. According to Dr. Saunders the contractors undertook that the fittings for the new building should be ready by last October, but as the committee were anxious that nothing should have the appearance of undue haste about the preparations, they determined that the

building should be thoroughly fit for the reception of the fittings. The fittings were now complete, and the building was ready for opening, with the exception of a corridor in course of construction. It was the intention to open the library free to the public, the opening of the reading room acting as the pioneer to the opening of the whole of the library to those who might desire to go and read there.

When may the citizens of Dublin expect to have a free library or a reading room provided by the Corporation of this city? or when will our citizens be afforded any facilities by our taxing Town Council in the important matter of acquiring a technical education? Had we an intelligent body of men in our Corporation, really interested in the welfare of our city, our public squares would have long since been thrown open to our working classes, and a free library would have been established in connection with the City Hall. Instead, we have jobbery, bankruptcy, ruin, dirt, disease, spoliation, and chronic mismanagement staring us blankly in the face. When matters are at the worst, perhaps we will have a change, though in the opinion of all sober and honest-thinking persons the local government of this city cannot possibly become a greater scandal than it is at present.

That the several works committed to us having nearly reached their completion, we have deemed it desirable to take into our consideration the arrangements necessary to be made upon the occasion of their formal opening, which we confidently anticipate may take place in the month of July ensuing. Having regard to the uses to which these buildings are to be devoted, your committee have arrived at the conclusion that the most appropriate inauguration would be by a *conversazione*, embracing an exhibition of works of ancient and modern art belonging to the Corporation and others; a collection of microscopes and scientific instruments of a similar class, &c. In furtherance of this suggestion we have been favoured with offers of assistance from several gentlemen, who have liberally placed at our disposal their valuable, and in many cases unique and priceless, collections. Amongst these we may mention one belonging to James Anderson Rose, Esq., comprising a very large number of fine and rare engraved portraits of British and foreign sovereigns, princes, ecclesiastics, statesmen, naval and military commanders, philosophers, discoverers, poets, literary men, artists, &c., numerous etchings and engravings by Rembrandt, Albert Durer, Whistler Le Gros, Meryon, and other celebrated English and foreign engravers. Also a selection from the portfolios of Charles Morrison, Esq., which contain a magnificent series of engravings and portraits, all of great rarity and excellence, of the Italian, German, Dutch, and French schools. These combined collections would afford us an opportunity to illustrate the history and progress of the art of engraving in a manner which could not fail to form a most interesting and instructive feature on the occasion. It is proposed to give variety to the exhibition by arranging the works of each engraver together, which practically will bring the portraits historically into groups: thus Wanteuil, the great French engraver, produced portraits of men of the times of Louis XVI.; De Lea those of Henry IV.; Elstrack, Deleram, and Fass, those of Elizabeth and James I.; Faithorne, those of the two Charleses of England, &c. The display would be further enhanced by a series of water-colour drawings and prints belonging to J. E. Lardner, Esq., illustrating the topography of old London, Westminster, and Southwark, and possessing the highest interest to the archaeologist and general observer. Another source of attraction would be found in a selection of Roman and mediæval antiquities, coins, &c., from the museums of J. Walker Baily, Esq., and others, who have generously offered us the loan of their specimens for exhibition. We recommend that we should be authorised to take steps for giving effect to the foregoing suggestions, and also to make such other appropriate arrangements for the occasion as we may consider necessary for the entertainment of the guests and members of the Corporation, and further to direct the preparation of a suitable catalogue which would not only be of practical utility to the company present at the *conversazione*, but would form an enduring and most acceptable record of the event. Having considered the probable expenses which these several propositions would involve, we further recommend that a sum of not exceeding £1,500, should be placed at our disposal for such purposes—which amount, we believe, will enable us to carry

out the inaugural arrangements in a manner worthy of the Corporation, and also subsequently to afford opportunities for the public inspection of the collection during such period as we may hereafter determine, by means of tickets to be issued to the several members of your Honourable Court; this, we would suggest, may be extended to two or three weeks. That, in order to secure the active and harmonious co-operation of the Library Committee, this committee sought a conference with that body, and expressed its willingness to have associated with them, for the purpose of making arrangements for the opening of the new buildings, six members of the Library Committee, and the following gentlemen having been nominated for that purpose, viz., Messrs. Taylor, Bone, Wheatley, Atkins, Wild, Bengough, we recommend that the Court should sanction this arrangement. Your committee avail themselves of this opportunity to report to your Honourable Court, that during the progress of the works for the new library, they have accepted, on behalf of the Corporation, the following valuable addition to the ornamentation of the building, viz.: From several of the Livery Companies of the City, through the Council of the London and Middlesex Archaeological Society, two stained glass windows, one for the southern end of the library, and the other for the grand staircase leading thereto, in which the arms of such companies will be depicted. From the inhabitants of the Ward of Alderagate, through the representatives of that ward in your Honourable Court, a window of suitable character for the northern end of the library. From Mr. Alderman Finnis, two massive and finely-sculptured slabs from Nineveh of undoubted authenticity, and in a good state of preservation. We have also recently received with much gratification an offer from Baron Lionel N. de Rothschild, M.P., through Henry Aaron Isaacs, Esq., a member of your Court, to present an appropriate window for the new public reading room. These magnificent gifts, indicating as they do the appreciation by the several donors of the public spirit which has actuated the Corporation in providing so fitting a receptacle for its literary and artistic treasures, your committee we believe will be received with the highest satisfaction by your Honourable Court, and we recommend that the Town Clerk should be directed to forward on behalf of the Corporation suitable acknowledgments for the same.

TANEY CHURCH, DUNDRUM, COUNTY DUBLIN.

ON Monday last this little church was consecrated. The church, with the exception of the chancel, was built about forty years since, and would have remained in its incomplete state longer had not Mr. Henry Roe defrayed the expense necessary to complete it and add to its ornamentation. The church now, as an ecclesiastical edifice, has a much improved appearance, and with the addition of a stained glass window and a new organ, the gift of Mr. and Mrs. Roe, the congregation of the district are at last provided with a suitable edifice. Service heretofore in this church was conducted in pursuance to a licence, and henceforth the building will be known as Christ Church, Taney.

THE BELFAST STRIKE.

THE strike of the flax-dressers has within the last few days assumed threatening proportions, and is not unlikely to lead to disastrous consequences. An arbitration would put an end to this unsatisfactory state of things. The people of Belfast, and its tradespeople in particular, always have exhibited characteristic common sense, and we trust on this occasion the "strike" will be one of very short duration. A "strike" never should be resorted to if it could be possibly avoided. Belfast has a good staple trade, and may she long preserve her superiority in this respect, but she has ambitious rivals in sight of Antrim coast and on a less friendly shore, and these are not the only ones who would step into the breach which a prolonged strike would create.

"THIG AN THU."

"Come into my parlour, said the spider to the fly."
"New Medical Publication. Quack doctors, their impositions and victims, the causes of suicide, and distrust of legal qualified medical men by these who

have been victimised by the so-called doctors. Post free, on receipt of two stamps, by Dr. Mulvany, 4 Christchurch-place, Dublin. Dr. Mulvany's Elixir is now acknowledged and recommended by the Faculty as the only infallible specific for nervousness. One dose relieves—one bottle cures. Guaranteed never known to fail in even the worst cases. Sold at 5s. and 15s. per bottle. Sent to any address, 61. extra.—*Daily Express*.

"One dose relieves—one bottle cures." Most effectually, we have no doubt. The patient will have no necessity of being reminded not to repeat the dose!

PARLIAMENTARY.

MUNICIPAL CORPORATION (IRELAND) LAW AMENDMENT BILL.

SERGEANT Sherlock, in moving the second reading, said the object of this bill was to assimilate the franchise in Ireland for municipal purposes to that which was now practised for parliamentary elections.

Mr. Butt (who had another bill on the same subject), Mr. Vance, Mr. Mahon, Mr. Synan, and the Attorney-General for Ireland, urged the withdrawal of the bill, and it was withdrawn.

The Elementary Educational (Provisional Order Confirmation) Bill was read a third time.

Tramways Ireland, (Provisional Orders Confirmation) Bill passed through committee.

Tramways (Provisional Orders Confirmation) (No. 2 and 3) Bills were read a third time and passed.

Masters' and Workmen's Arbitration Bill was read a second time.

Mines (Coal) Regulation (Expenses) Bill passed through committee.

TO CORRESPONDENTS.

GEORGE SEMPLE, ARCHITECT.—There are not many particulars known of the life and practice of this Dublin architect. His name is associated with the rebuilding of Essex-bridge, about the middle of the last century. He designed some buildings in this city, in Wexford, and other places, and published a volume about 1775, "On Building in Water, accompanied with succinct diary, detailing the whole progress day by day made in the rebuilding of the above bridge, with plans, drawings, borings, &c., and the many expedients that had to be devised in carrying out the work." The volume is scarce, curious, and amusing, but still useful in many ways.

LIVES OF IRISH ARCHITECTS.—The author of the intended volume is still engaged in collecting materials, and the trouble is nowise small in regard to the practice of some of the profession in former days in this country.

"A RATEPAYERS' ASSOCIATION."—One ought to be established at once, not only to counteract the insidious attempts of the Corporation in many directions, but to prepare the way for the next elections in putting in honest and practical citizens, and bundling out imbeciles and jobbers.

MECHANICS' INSTITUTE.—In these days of advanced knowledge and technical education, this body, we think, might do a little more in behalf of its constituency. Reading-rooms are very useful, and occasional lectures instructive, when they are practical ones; but there are a variety of ways and modes of making a mechanics' institute partake somewhat of the character of a school of art and a workman's college for technical instruction.

CARPENTERS' ASYLUM.—Though intended originally for the purpose, the object was never attained, nor any earnest endeavour made to effect it. The so-called asylum is the Carpenters' Hall, or meeting-house, and we think the members would be doing a wise thing if they would imitate the example set by the bricklayers and masons, and establish a useful library and reading-room, and have occasional useful lectures on constructive carpentry and masonry delivered in connection. Games of chess, draughts, dominoes, &c., for which a room could be provided, would be a more useful occupation for a portion of the members so inclined than frequenting the "tap." *En passant*, the practice otherwise—and of which we know of more than one example of trade bodies holding their meetings in public-houses—must be condemned as mischievous and degrading.

THE VARTY RESERVOIR.—Nothing is ever expected to go wrong with this volume of water, and according to the chairman of the Waterworks Committee, everything is pure and has been pure in connection. Complaints, however, are reaching us of certain nuisances finding an entry into the supply near the source. We cannot ourselves vouch for the fact, but sufficient for us at present to be aware of facts of another kind of a contaminating nature in relation to these said waterworks.

EXHIBITION MATTERS.—Complaints still reach us, but we are disposed to act charitably, in the hope that a reform will soon be observable. Correspondents will understand us, and cease to be passionate. There may be a change of the wind soon, and the sun may shine although the sky is somewhat cloudy.

WINDOW GARDENING.—We would like to see the taste somewhat more cultivated in this city. We have many indigenous plants and flowers suited for the purpose. We have as yet no volume, no *Flora Dubinensis*, worthy of the country.

RECEIVED.—"B and Co.," "An Artizan," "Builder's Clerk," "R. B.," "J. D.," "Antiquarian," &c.

THE Co-operative News.—A copy of this journal for the 1st of June contains some papers which we may advert to hereafter. In the article "The Causes of Social Revolt," by Captain Mayne, R.N., there is a considerable amount of truth, and his remarks about the exclusiveness of the daily Press of London, and the scant favour they bestow on really important questions affecting the working classes, are unfortunately too true. From *Times* to *Echo* it is all an echo, not of public opinion, but party opinion.

BREAKFAST.—EPPE'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—JAMES EPPS & CO., Homoeopathic Chemists, London. Also, makers of Epps's Cacaoine, a very thin beverage for evening use.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filled with vestas, at one penny. Any Tobacconist, Grocer, Chemist, or Chandler will supply it.

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ILLUSTRATIONS: ELEVATION OF CHANCEL ARCH AND GROUND PLAN OF MONAINCHA, CO. TIPPERARY.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Post Office Orders and Cheques should be made payable to Mr. PETER ROE, 42, Mabbott-street, Dublin.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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The Irish Builder.

VOL. XIV.—No. 301.

Concrete Building in Ireland.

WE are glad to see in more than one place in Ireland a growing desire to adopt the concrete system in cottage construction. In a country which still retains amongst its landed gentry as well as its tenant proprietary many stout advocates for antediluvian mud, it is cheering to see that the breach that has been made some years since by improving landlords and equally anxious tenants is widening daily. Several inland as well as seaboard counties have a number of improved farm dwellings and labourers' cottages, and quite recently we illustrated and described some which were built upon the estate of his Grace the Duke of Leinster. In the report of the judges appointed to inspect labourers' cottages and drainage competing for prizes offered by the Royal Agricultural Society of Ireland, which we reprint elsewhere, four concrete cottages, erected for Mr. Mahony, in Dromore, are spoken of very highly by the judges, and their owner has been awarded the gold medal for Munster. They were erected according to Mr. Tall's patent, and they fulfil some of the primal conditions of comfortable buildings—complete absence of damp, sufficiency of space, well-lighted, strongly-erected, and, withal, economical in their cost. Whatever they lack in want of accommodation, or whatever minor faults may exist owing to the nature of their plan, one thing is clear, that in their construction the utility and value of concrete for labourers' and other dwellings have been fully demonstrated.

Concrete building, as at present practised in the British Islands, is not of many years' duration, and each year is adding improvements. A method of construction, however, quite akin to the concrete system has existed from the earliest times, slightly different in the degrees of mixture in different countries. Any one who has examined the walls of the old castles and ecclesiastical buildings of this country, but particularly those of the Round Towers, will be struck with the nature of their bond—not bond in the modern building acceptance of the term. The mortar forming this bond or binding power was called "grout," but in reality the grouting system adopted centuries ago in Ireland was nothing more than the concrete system under another name, and differing only as to the methods employed in the building of the structure.

George Semple, a Dublin architect of some note, whose name is known in connection with the building of Essex Bridge, 1753-5, published a volume in 1775 "On Building in Water." From this volume we quote the following interesting evidence, under a chapter headed "Concerning Lime, Mortar, and Grout":—

"My father (who was a workman about the year 1675) often told me, and my own repeated observations convince me, that the methods masons practised in former times in building churches, abbeys, castles, and other

sumptuous edifices in this country was to this effect. After they laid the outside courses with large stones, laid on the flat in swimming beds of mortar, they hearted their walls with their spawls and smallest stones, and as they laid them in, they poured in plenty of boiling grout or hot limo-liquid among them, so as to incorporate them together, as if it were with melted lead, whereby the heat of it exhausted the moisture of the stones, and filled every pore which (as the masons term it) set, that is, grew hard immediately, and this method was taught to our ancient masons by the Romish clergy that came to plant Christianity in these countries, and I affirm that in many of such old buildings, I have seen the mortar as it were run together and harder to break than the stones were."

Semple in laying the foundations of Essex Bridge practised his grouting or concrete system to the top of his bent, and did not err on the side of selecting sharp clean sand and well-burned limestone. In fact, George Semple, who appears to have been a very laborious and painstaking architect, was, to use his own words, "from my childhood, been well acquainted with the nature of lime and sand made into mortar of all sorts, that have been used in buildings in these countries, and tried numerous experiments with them, on which, together with what I have observed and learned from old experienced workmen, during the course of sixty years, I think, I can safely affirm that good mortar, that is mortar made of pure, well-burned limestone, and properly made up with sharp clean sand, free from any sort of earth, loam, or mud, will, within some considerable time, actually petrify, and as it were turn to the consistence of a stone."

In further confirmation of the virtue of good mortar, Semple quotes a couplet which he remembers to have had from an old Scotch mason—

"When a hundred years are past and gane,
Then gude mortar is grown to a stane (stone)."

We thought it would not be amiss to give the experiences of one of our old native architects, whose own recollection and that of his father and grandfather extended probably back one hundred and fifty years, or, otherwise, to the beginning of the seventeenth century. Care and experience are required in the choice and mixture of materials, for the quantities that will be found to answer in one neighbourhood will not be found quite as answerable in another from the difference in the qualities of the materials used. Every amateur thinks he fully understands concrete building, but we would advise those who wish to deal with this material either to employ practical men, or, before dabbling in it, to learn the nature and properties of lime, sand, or cement, and particularly to acquire a knowledge of the local materials that their district supplies, before submitting them to the same process or treatment that they have learned is adopted elsewhere. The materials and quantities used in the construction of some concrete houses at Folkstone, in Kent (as we learn from our contemporary the *Builder*), were, six measures of shingle, two measures of clean sharp pit sand, and one of Portland cement. "Stuffing" was introduced in the thickness of the walls, such as pieces of chalk, broken bricks, and pieces of stone. In the formation of an esplanade in front of the Crescent at the same place, concrete slabs about 3 in. thick were used, the slab being laid at 6d. a foot super-

ficial, and the curb at 9d. a foot running. In making the thin slabs, about four measures of shingle, smaller in size than that employed for the walls, is used, with one of cement.

We would like to give every encouragement to the general introduction and use of concrete construction in Ireland, but to avoid failures we simply advise caution. Concrete will make a good dry, durable, and economical structure, and, where it can be used with advantage, it should be used. We would like to see the last of these mud hovels which disgrace our country and reflect very little to the credit of the landed proprietary. The mortality of this island will be always at a high figure so long as thousands of them are allowed to exist upon the face of the land. Of course we do not wish to see them tumbled over the heads of their occupiers until improved dwellings are erected in their stead. It is lucky, indeed, for the health of cities and towns, that mud dwellings are mostly confined to suburban districts or country villages; for, could we imagine them to exist in the heart or even on the borders of a great city, with their inherent faults of barbarous design and total absence of drainage, we might expect a chronic state of plague.

Improved farm-dwellings and workmen's and labourers' cottages are an absolute necessity, and in our towns and on the borders of our cities we have ample room for a healthy experiment. Here in Dublin the great majority of our working classes are housed in antiquated and ill-drained and ill-ventilated tenement houses; and in this, as in other things going to ruin under local mismanagement, a radical change is emphatically required in the interest of the public health.

MR. TALL'S PATENT.

In dealing with the question of Concrete and its more general introduction into Ireland, a few words in strict justice are due to the labours of Mr. Tall, whose announcement will be found in our advertisement columns. In England the success of concrete construction under Mr. Tall's patent is assured, and we are not strangers to the fact that the success of the concrete system of building is owing in no small degree to the creditable and durable erections put up according to the method brought into practice by that gentleman. It would be rather tedious to enumerate all or the principal works in concrete erected during the last few years under the patentees in the different English counties, but we may instance that Messrs. Tall and Company are contractors to the Peabody Trustees in London, and are at present erecting a number of industrial dwellings for them, intended for the better housing of hundreds of the working and middle classes. We noted also with pleasure the award of the Royal Agricultural Society of Ireland, printed elsewhere, and to which we would particularly refer the reader. This award is another strong evidence in favour of concrete when properly prepared and manipulated by practical men. There is no earthly reason why a building of concrete should not be durable, and its duration has been placed beyond doubt now by sufficient time and experience. Solidity, and complete absence of damp, and economy are the characteristics of the dwellings erected under Messrs. Tall's patent, and we trust to see its more general adoption in this country. We are satisfied as to its value in careful hands, and we are confident ere long that all really improving landlords who test its utility will be also satisfied, and will no longer permit any further erection of those barbarous mud dwellings which, if they do not actually disgrace, at least disfigure, their estates.

THE BERLIN BRAIN-PICKING COMPETITION.

EXACTLY as we foretold in our article on this competition in our issue of May 15th, it has turned out. We reproduce a paragraph to show how near we were to the truth:—

"We will be grievously disappointed, in view of late events, if the Berliners allow any foreigner to have 'a walk over' the Prussian lines, and snatch this architectural plum from the mouths of their countrymen. We fear very much, indeed, for the credit of British artists in this foreign competition. That one of them may come off second or third best, we do not doubt much; but it will be a miracle indeed if a German genius, whether the merit is his own or not, does not prove to be the selected."

All the prizes, with the exception of one, that of Mr. G. G. Scott and Son, were awarded to German architects, and the giving of a second prize to a British architect cannot be considered in any other light than as "a sop to English *amour propre* and national sensibility," as an English correspondent at Berlin properly described it. We were told by one professional contemporary that the composition of the jury offered a perfect guarantee of fair and impartial criticism. Need we ask, in face of the sweeping one-sided decision of the judges, where is the least evidence of this impartiality to be found?

Mr. Scott would have shown his sense of English sensibility in a greater and more chivalrous degree, if he had politely made a present of his prize to his German judges; and his English and Irish professional brethren would not have thought less of him for so doing. The *Globe*, commenting on the awards, observed, it is "only natural, and what might have been anticipated. The wonder is, that any English architect should have been induced to enter the race, seeing that the judges were wholly German, and that the plans were not sent in under motto, but with the names of the authors attached." And the Berlin correspondent already alluded to remarked that the homely German proverb was fully applied, *i.e.*,—"The fattened pig was predestined to be killed for fatherlandish home consumption only." The Berlin press unmistakably showed their partizanship before any of the awards were made. It needs but little foresight to augur the sequel of this foreign competition; and at the risk of being put down as false prophets, we will just ventilate our own opinion.

We are indeed told now that none of the designs will be executed, and that a different site than the one first determined upon will be chosen. That may be the resolve, and it may be carried out, too; but it covers a foregone conclusion. In the meantime, the designs, plans, and elevations were well analysed, and it is not unlikely that Professor Bohstedt, who was awarded the first prize, or one of his Eclectic school brethren, will be instructed to prepare a new design. With the experience and insight gained by being allowed to pick the brains of a hundred British and Continental architects, minus the Berliners, he would be the veriest tyro who could not produce something respectable.

Architectural plagiarism is fashionable, like other requisitions, in the new German Empire; and poor France, who has paid the piper and danced to some effect, may yet remember whose money first properly housed a German parliament. The Germans will at least not forget the cause, and the circumstance; and those who good-naturedly at home trusted their honour and their plans to German judges, in the full blazonry of their sign-manual, can only blame themselves, and "mend their line, and sin no more," at least in that direction. On a former occasion we said the prizes were worth a contest, a fair and open one; but we have lived to see a sham. A golden bait was thrown out, and perhaps small blame can be attached to the competing many, when it is remembered that in the British islands alone there is a huge amount of unutilised architectural talent

anxious for some outlet. Rejected competitions of merit in these islands are nowise sparse, we must allow, owing to the corrupt dealings of cliques and self-constituted committees in our local boards and other public bodies. The rascals, however, who prove traitors to a great public trust are sometimes unearched, and public opinion often falls hot and heavy upon them, but not quite so often as is desired. To induce hard-working architects to compete for any work, to heartlessly allow them to spend their time, their labour, and their materials in contesting for a premium where a favourite is already picked out for selection, is criminal in the highest degree; and, as in small things, so in large.

It has been left for Prussian intellect in the last years of the nineteenth century to show its superiority in brain-picking, as well as its military success, in requisitions and annexations. *Tempus omnia revelat.*

BENEFIT BUILDING SOCIETIES.

THOSE who are not otherwise practically acquainted with the history and working of Benefit Building Societies, would do well to procure the second report of the Commissioners, lately issued, who were appointed to enquire into their action and management. A calm perusal of that report will convince the most sceptical that Benefit Building Societies need reform, and that, without circumscribing their limits too much, they require to be kept within certain well-defined limits. The original act relating to their administration never contemplated their conversion into huge loan or joint stock companies. A building society, that ceases to be such, should cease to trade under a false name, or by the action of a sharp law procedure made to register its new title, and be held amenable to the laws of the societies whose practice it imitates. We alluded in our last issue to some Dublin societies which no longer provide the working classes a safe investment for their savings, having closed their share list, and only receive deposits for the profit of existing members. We agree with Mr. Lynch Daniell, that building societies in this country, as elsewhere, should be prohibited from advancing money except to build and buy houses or plots of land, in connection or for the purpose of building, and attaching a heavy penalty to depositing as security for money borrowed any mortgage deeds by which property has already been secured to the society.

The most cursory observer can see that the proper function of our building societies in this country is inactive, and that the advancing of money to buy or build is the exception; consequently the power and usefulness of these societies are nearly altogether lost or held in abeyance.

In England and Scotland there are some well-managed building societies, which strictly keep to their functions; and it is quite possible for a committee of working men to manage a society in its own interest. As soon, however, as the society increases in members, a permanent place of business should be taken; a good secretary is indispensable, and that he may do his business efficiently, he should have a fair salary. In a few years, as a society expands, its officers may be judiciously increased; though even in its first stages good managers are an important provision, with the assistance of good actuaries and surveyors, who will strictly do their duty.

On the subject of Terminating and Permanent Building Societies, much could be said. These societies are at present, and have been for some years, in a state of transition. Permanent societies have greatly increased, while terminating ones are apparently diminishing. There is no doubt that of late the tendency of permanent building societies is to become mere investment societies. Another marked tendency of the permanent societies is their gradual transformation into middle-class organizations, thereby withdraw-

ing whatever benefits that are incidental to them to be available alone for a class of society for which they were not specially intended. The terminating societies are still largely under the management and control of the working classes, while the permanent ones, though supported by the working classes also, yet they are most invariably under the direction of the middle class.

Within the last week an influential deputation, claiming to represent 1,100 building societies, with an aggregate of £10,000,000, waited upon Mr. Secretary Bruce and Mr. Winterbottom, to urge upon the Government the propriety of considering their amendments to the Building Societies Bill, now before Parliament. Mr. Gourley, M.P., accompanied the deputation, and the bill before the House was introduced by that gentleman. The danger was pointed out by one of the deputation that would result by placing the societies under the Joint Stock Act, as Mr. Winterbottom proposed. What the deputation sought was the consolidation of the law, as it could be read by the legal interpretation of the cases that had been decided in the law courts. Mr. Bruce fully concurred in the importance of the subject, and said he was aware of the wholesome influence which well-managed building societies exercised throughout the country; and it was the intention, he said, of the Government to protect these societies. He alluded to the Commission lately appointed, which had not finally completed its labours. It would be premature yet, Mr. Bruce considered, to legislate until the Government were in full possession of the information to be obtained, and he reminded the deputation that the Commission did not agree with the bill to be brought before Parliament, or the amendments of the Government.

If the Government wisely fulfil their promises, and give their protection to building societies conducted in accordance with the true object of these organizations, we will have reason to feel glad. It will, no doubt, strike a line of demarcation between mere investment societies, with closed share lists, and *bona fide* building societies, established for the purpose of providing a safe investment for the savings of the poor, and of enabling them in the course of time to provide severally homes that they can call their own.

NOTES ON THE ECCLESIASTICAL ARCHITECTURE OF IRELAND.

BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A. SCOT.

INCHAGOILL.

THIS is a small island in Lough Corrib, belonging to the parish of Cong, and lying somewhat midway between that town and Oughterard. It was anciently known as *Inis-an-Ghoill*, and is thus described by O'Flaherty in his "*Iar Connaught*":—

"Inis an Ghoill, so called of a certain holy person who there lived of old, known only by the name of *Az Gull Craibtheach*, *i.e.*, the Devout Foreigner: for Gull (*i.e.*, of the Gallick nation) they call every foreigner. So Inis an Ghoill, or the foreigners' island, between Ross and Moycullen barony, on Lough Orbsen, contains half a quarter of pleasant land belonging to Cong Abbey, and hath a fine chappel therein, which is not for the burial of any body. On this island died Anno 1128, Murgess O'Nive, Archbishop of Tuam.

"Inis an Ghoill hath two chappels, the one dedicated to St. Patrick, the other to the saint of whom the island is named, which admits not the burial of any body, but in the first it is usual to bury."—(*Iar Connaught, Irish Arch. Soc.*, p. 24.)

That this was one of the sacred islands of the Gaedhill there can be no doubt; the pagan fane gave place to the primitive church, and it is by no means unlikely that St. Patrick may have been its original founder, and that here he placed one of his Gaulish companions in the ministry. Dr. Petrie has laboured at some length to prove that this

"devout foreigner" was a contemporary of the apostle's, and probably one of his seven nephews by his sister Liamhain. The former supposition is not unreasonable, but the tale of his being accompanied to Ireland by his sister and his seven nephews is apocryphal, and not founded on any trustworthy authority, being one of those mediæval legends with which the life of our great missionary has been encrusted. The name of this nephew is given as Lugnath, and Dr. Petrie conceives that a monumental stone existing on the island bears his name. It is of dark limestone, about 4 ft. high, and has an inscription cut lengthways, principally in minuscule letters, with a few Roman capitals; he reads it:—

LIE LUGNAE DON MACC LMEUUEH.
THE STONE OF LUGNAEDON, SON OF LIMENUUEH.

There are two equal-armed Latin crosses on each of three sides, and one on the fourth side; the terminations of each arm is bifurcated, as in the case of some very ancient examples found in Kerry and other places. Unfortunately for the doctor's theory, the third letter of the first name is a reversed L and not a G, to which it has not the remotest resemblance either in Roman or Gaelic alphabets, numbers of which I have examined. The fourth letter is not an N but a U; there are three of the latter in the legend, and all perfectly alike; how, therefore, he has converted it into an N, I am at a loss to conjecture.

Again, it never was the custom in Ireland to name individuals as the son of the mother; in all monumental inscriptions it is the patronymic that is used, as is evidently the case here. The forms Lemnatha and Loman are found in our annals and hagiologies, while Lemanagh and Lomanagh are used as topographical designations. The ecclesiastical writer Tillemont and the erudite Lanigan have discarded the entire fable of the nephews and sisters of St. Patrick.

The ruins of the two churches mentioned by O'Flaherty still exist, and are interesting as evidencing two distinct eras in architecture. The most ancient is named Teampuil Patrick; it is of the primitive type, consisting of a nave 17 ft. 8 in. in length and 13 ft. 6 in. in breadth, clear of walls, and a chancel 9 ft. by 9 ft. The doorway is in the west gable, being 2 ft. wide at bottom, and 1 ft. 9 in. at top, and 6 ft. in height, built of large thorough blocks, carefully dressed. The general masonry is of large irregular blocks, dressed and laid without spawls, and shewing a considerable advance in the masonic craft. There can be no doubt that this was the earliest Christian edifice erected on this sacred isle, and not unlikely that the tradition of St. Patrick being its founder is very near the truth.

The other church, though also of small dimensions, is of an advanced type. It consists of a nave 21 ft. 6 in. long by 13 ft. 6 in. wide, clear of walls; the chancel is 12 ft. in length and 8 ft. 6 in. in breadth. The principal feature of interest in this little edifice is the doorway, which is in the west gable; it is 2 ft. 6 in. wide at bottom, in clear of inside piers, and 2 ft. 3 in. at top. It has three recessed piers on each jamb, the external one projecting from the wall face and enriched with a triple torus, which form slender shafts, the capitals of which are highly enriched with carving, having human heads and interlaced strap work under a square abacus, with the ball ornament; the two inner piers have similar quoin shafts, with capitals of the same character. There are three orders of arches to correspond, enriched with the chevron, a sort of ball-flower, and a scalloped ornament that I don't remember meeting with elsewhere. The ornaments of this doorway are much damaged, and the sketch on plate is reduced from a drawing by the late Mr. Du Noyer, in v. v., plate 34, of his collection of sketches, in the library of the Royal Irish Academy.

ST. PETER'S CHURCH, FERNS.

Ferns, anciently Fearna-mor-Meadhog,

was formerly an episcopal city in the County of Wexford, but now dwindled to the proportions of a village. Brandubh, King of Leinster, gave lands to endow a monastery, of which St. Aidan, also named Maadhog, was first abbot or bishop, about A.D. 598; his death is given at A.D. 624. The *Annals of the Four Masters* contain many notices of this place, which was attacked and burnt by the Danes in 834, 836, 838, 917, and 928.

Mr. Marcus Keane thus describes the existing remains at Ferns:—"Here are the most interesting Cuthite remains existing in the County of Wexford. In fact, those found elsewhere throughout that county are mere fragments, noticed only because they corroborate the other evidences adduced of the Cuthite origin of the several places where they exist. In St. Peter's Church at Ferns is a beautiful little window, ornamented with spirals, such as are described at p. 247, *ante*, and illustrated in figs. 88, 90, and 81. There is nothing else of interest about this building, which is a rude early Christian structure. At the opposite side of the river and adjoining the town is St. Maidoc's Church and burying-ground, about which several interesting relics are to be seen. The head of an ancient sculptured cross is half buried in the ground at the gate of the churchyard. The heads of two others are built into the wall near the church. The shaft of a fourth is used as the headstone of a grave in the burial-ground. The Round Tower seems to be wholly a modern structure, with a few stones of some ancient building used in the opening of the apertures; but near it are two small ancient temples, with one ancient window in each, and with arched niches in the sides. In one of these ruins is a small spiral staircase that I believe to be ancient, the steps of which are 20 in. broad, with a newel of 12 in. in diameter. Fragments of ancient stone, too numerous for special notice, are used in the monastic buildings of Ferns, which seem to have been very extensive. There is as usual much well-executed reconstruction even in the earliest of the mediæval portions, which makes it difficult to discriminate between all that is modern and all that is ancient. Some fragments of antique masonry are used in the construction of the very modern building that covers the Holy Well."—(*Towers and Temples of Ancient Ireland*, p. 458). The window illustrated on plate is reduced from a drawing of Mr. Du Noyer's; here we have the insertion of a pointed window in one of an early Romanoesque type.

KILLESBIN.

Killesbin is a parish in the barony of Slieumargie, Queen's County; its ancient church is situated on the side of a hill about three miles from the town of Carlow. Its immediate locality must have been a place of some note in former times, as Sir Charles Coote, in his *Statistical Survey of the Queen's County*, refers to the existence of a town near it, some remains of which existed when he wrote, in 1801; his words are as follow:—"Contiguous to this remarkable cut of Killesbin, are the ruins of a church of the same name, which has a very antique and highly-ornamented entrance in the Doric order, of really excellent workmanship, and around which is an inscription, in very old Saxon characters, but so battered and abused as to be almost totally defaced. Adjoining this church was a Danish Rath, encircled with a very deep fosse. This place is remarkable for having once been the chief town in the Queen's County in disturbed times, though not a stone building now standing, except the ruins just mentioned. Here was the county gaol and court-house, where the assizes were held, and the governor's mansion, which was a fine building; also a fort, and public buildings, of which there is now no trace. The stone stocks and gallows stood the wreck of time the longest, and their sites are pointed out by the old people, in whose recollection they are yet. But excepting the ruins of the church, not a stone now remains over ground of this once celebrated town, nor the slightest

vestigo of its entrance, but by turning up the sod you find immense heaps of stones covered with mortar, and now dug for to repair the roads."—(pp. 193, 4). Our author's architectural and philological knowledge was evidently not extensive, when he describes the richly-carved Romanoesque doorway as being in the Doric order, and its Irish inscription as being "in very old Saxon characters." A writer in the *Dublin Penny Journal* (vol. for 1834, p. 112) has an article on this church, illustrated by a rude woodcut, but, strange to say, gives no description of its architectural features. The compilers of Lewis's *Topographical Dictionary* mention the ruins of the ancient parish church as having an ornamented entrance, "enriched with an illegible inscription in ancient Irish characters," and further states, that "near it is the site of an ancient round tower." Archdall makes no mention of this place. Wakeman, in his interesting *Handbook*, has a notice of it, illustrated by drawings of the capitals; he remarks:—"The church of Killesbin, in the Queen's County, lying at a distance of about two miles from Carlow, appears to have been one of the most beautiful structures of this class ever erected in Ireland. Its doorway until very lately retained in a remarkable degree the original sharpness of its sculpture. We were informed, that about fifteen years ago, a resident in the neighbourhood used to take pleasure in destroying as far as lay in his power the beautiful capitals here represented, and that to his labours, and not to the effects of time, we may attribute the almost total obliteration of an Irish inscription which formerly extended round the abacus, and of which but a few letters at present remain."—(*Handbook of Irish Antiquities*, pp. 79, 80).

The loss of the legend is much to be regretted, as it probably expressed not only the name of the founder, but also that of the architect, as in the inscription over the doorway at Freshford, an example that might be followed in the present day. The existing remains indicate that the western end of the church was of considerable antiquity, not only from the character of its masonry, but from the presence of antæ and a small circular-headed window in the north wall; the eastern end is a reconstruction, or rather an elongation, of the original building. The western doorway, though much mutilated, retains sufficient of its details to indicate the original character of its varied ornamentation. Like the majority of door-ways of this class, it is very narrow, with converging jambs; its dimensions being 2 ft. 10 in. at bottom, and 2 ft. 8 in. at spring of arch in clear of inner piers; it is 6 ft. in height to the top of capitals of jamb shafts; its external dimensions are, however, 9 ft. 9 in. in breadth, and 11 ft. 6 in. in height from ground to the top of label moulding. It is deeply recessed, the west wall being 3 ft. thick, and the projection of the outside piers 1 ft. more. The jambs are each composed of four piers, the external and internal ones having shafts on both arrises, the intermediate ones three quarter columns; all have capitals highly enriched with carved heads and interlaced work, under a bold abacus ornamented with pellets; the bases are moulded, of curious design on chamfered plinths; they were also enriched with carving, portions of which remain, showing animal forms and scroll work; the panels on the outward piers, between the shafts, were ornamented with scroll work and pellets. The four arch members are also richly carved both on the faces and joffets, in a variety of patterns, as lozenge and triangular panels filled with leaves, different forms of chevrons, frets, &c. The keystone of the external arch member bears a head carved in bold relief, and the whole is crowned by a label enriched with dentils. A careful and faithful restoration of this beautiful doorway, from a drawing by Mr. Richard Johnston, was published in the *Builder*, London, 1854, p. 3. The plan and portions of the details shown on plate are taken from that gentleman's drawing, with some slight corrections.

TOPOGRAPHIA HIBERNICA.

PART THIRD—Conclusion.

IRISH WRITERS AND IRISH LITERATURE.

ALTHOUGH extremely interesting in a scientific as well as in a historical point of view, it would lead us too far out of our scope to trace the rise and progress of surveying in general or topography in particular. The elements of geometry have afforded the scientific knowledge, and the energy of man has age by age accomplished the rest. It is a long lapse indeed since Eratosthenes attempted to determine the length of a geographical degree about 250 B.C., until the trigonometrical survey of the British islands was brought about, and means taken to establish a connection between the observatories of Paris and Greenwich. General Roy accomplished this work pretty accurately, and the survey itself, already alluded to, was begun in 1791 by Colonel Williams, General Mudge, and continued by General Colby and Major-General Sir Henry James, each of whom have been successively superintendents of the Ordnance Survey still proceeding.

The purely scientific reader, who wishes to pursue the history of the subject under notice in all its variations, we refer him to articles in the *Encyclopædia Metropolitana*, under Arts and Sciences, Pussiant's *Traité de Géométrie*, *English Cyclopædia*, Everast's *Account of the Measurements of Two Sections of the Meridian Arc of India*, Delcambre's *Méthode Analytiques pour la Détermination d'un Arc du Méridien*, Clarke's *Account of the Principal Triangulations, &c., relating to the Ordnance Survey of the British Isles*, and the recent account presented by Sir Henry James, the Director of the Ordnance Survey of the United Kingdom.

There is another description of topographical and antiquarian surveying of a literary and historical kind which has been the means of affording most useful information in modern times. Beauford and other writers, by aid of pen and pencil, contributed to the pages of the *Anthologia Hibernica*, 1793-4, some topographical and antiquarian sketches of Irish towns, castles, churches, ruins, and other antiquities, and this work, while it lasted, awoke an enthusiasm and prompted others to follow in the same track. Thus much historic and useful knowledge was amassed, which, though not always correct, was the means of affording other subsequent writers sufficient data to correct the errors. Old ruins were sketched and engraved by native artists, and the present and future historian of our ecclesiastical and civil architecture will be afforded connecting links and evidences whereby he may trace the growth of his subject. Until towards the close of the last century we had no serial periodical devoted to topographical or antiquarian notices of our towns or national monuments.* The volumes published treating on our resources, physical or natural, were few and far between. Some were published by Irish ecclesiastics while in exile, others by occasional travellers or foreigners, and a few by resident writers. There are some of these which remain still in MS., and others in their original Latin dress, and the student must hunt them up as best he may in home and foreign libraries. In 1772 a learned Quaker of education, by name John Rutty, M.D., published an Essay towards a *Natural History of Dublin*, in two volumes, 8vo. Rutty was previously long resident in Dublin, was a friend of George Semple, the architect of Essex Bridge, and had a literary warfare with the celebrated Dr. Charles Lucas on the subject of mineral waters. The influence, zeal, and enthusiasm of Rutty set other native intellects working, and soon afterwards were produced the first of those very

useful local natural and civil histories, including Down, Waterford, Cork, Kerry, and Dublin. Rutty's work was undertaken at the request of a native body called the Physico-Historical Society, at the head of which was Lord Chancellor Jocelyn. The society while in existence amassed a great body of material which never saw the light, nor was it known into whose hands or possession these papers passed. Doubtless, if they were not destroyed, they contain a vast body of useful information which would not be out of place to be known at the present hour. In 1774 General Vallancey began his *Collectanea de Rebus Hibernicis*, which, notwithstanding the wild and fanciful speculation of the enthusiastic antiquarian, the compilation was in some respects a valuable one. After some time the *Collectanea* ceased, but was again revived about 1781.

Under the revived issue of the *Collectanea* a number of gentlemen united their labours and formed a kind of literary and dilettante body. Ledwich and Beauford contributed to a couple of issues, but differences soon crept in about etymologies and early colonization, themes which led to the disruption of the association. Vallancey, with the aid of Mr. O'Connor and others, carried on his publication, however, till 1790. The discontented antiquarian section, headed by Ledwich, started the *Anthologia Hibernica* already alluded to, as an organ for their party. It was the Right Hon. William Conyngham who endeavoured to unite all the antiquaries in a literary association for the illustration of the antiquities of the country and of the collection of drawings he himself had acquired. James Cavanagh Murphy, a young Irish architect of that period, was assisted in his architectural studies at home and abroad and in the publishing of his works by Mr. Conyngham. Those whose names were united for a short time in association under the revived *Collectanea*, under Vallancey, were the following:—The Right Hon. William Conyngham, President; Charles O'Connor, Col. Vallancey, Rev. Mervyn Archdal, author of *Monasticon Hibernicum*; Rev. Edward Ledwich, the historian; William Beauford, A.M.; and Dr. Ellis. In Walker's *Hibernian Magazine*, the *Masonic and Sentimental Magazine*, Exshaw's *Gentleman's and London Magazine*, Cox's *Irish Magazine*, the *Hibernian Magazine*, the *London and Dublin Magazine*, Bolster's *Cork Magazine*, the *Gentleman's Magazine* (London), the *Ulster Magazine*, and some other native serials of short-lived duration, published at the close of the last century and early in the present, several articles are scattered, which afford much information of topographical antiquarian description relating to Ireland, and are well worthy of reference.

The present writer drew up a list of other native periodicals some years ago which may be consulted, but as he has not the list by him, and as they have escaped his memory, he can only refer the reader to Dr. Madden's *Sketch of the Periodical Literary Publications of Ireland*, in which they are included. In the early Dublin Society's Surveys, and the "Observations" upon these and other surveys of the different counties, more information will be found; and Mr. R. R. Brash, in his interesting and well-written "Notes on the Ecclesiastical Architecture of Ireland," at present appearing in this journal, has recently given a list of works that may be consulted with advantage to the topographer, surveyor, antiquarian, artist, architect, or artisan. In the year of 1832 a small native literary serial was projected, called the *Dublin Penny Journal*, lasting till 1836. These four volumes contain a marvellous amount of antiquarian information, in the form of topographic notices of towns and places, illustrated with woodcuts of ruins of castles, towers, abbeys, churches, druids' altars, cromlechs, cairns, caverns, holy wells, and various other relics of the past. With this literary venture the names of George Petrie, John O'Donovan, Cesar Otway, Sir William Betham, Thomas Crofton Croker, Robert Armstrong (a journeyman painter, and afterwards a parish schoolmaster at Ra-

heny), were connected as antiquarian contributors. Other writers of a less marked kind also contributed on native subjects valuable literary matter, prose and poetry. Martin Doyle (the Rev. Mr. Hickey), Edward Walsh, the poet, under the signature of E. W.; Clarence Mangan, under that of C. or Clarence; and the Rev. James Wills, author of the "Lives of Illustrious Irishmen," under J. U. U. The signature of T. E., which may be noticed appended to some tales throughout the volume, was that of Thomas Ettingsall, a fishing-tackle manufacturer of this city, and known as the author of "Darby Doyle's Voyage to Quebec," and several other humorous tales. The two first volumes of the *Dublin Penny Journal* are the most valuable, but they are all indispensable at the present day as references. The volume of the *Irish Penny Magazine*, published in 1833, of which a reprint was issued in 1841, is also a useful periodical, and contains many topographical and antiquarian notices of towns and places, with sketches and illustrations of our National monuments. The late John D'Alton was the contributor of the leading antiquarian notices, and Samuel Lover, the illustrator as well as writer of some humorous tales and sketches. The woodcuts in the *Dublin Penny Journal* and the *Irish Penny Magazine* were, we believe, mostly executed by Mr. Benjamin Clayton, belonging to a family whose descendants to the present day are proficient in the art. Benjamin Clayton's father, Samuel Clayton, was only a lad of sixteen years of age when he engraved some of the beautiful plates illustrative of Irish antiquities in the *Anthologia Hibernica* in 1793-4. There is an engraving of Castledermot Church in the *Anthologia* for October, 1793, and respecting it in the previous issue of that publication the following notice appears:—

"In our next will be given an engraving of the Church of Castledermot, by Samuel Clayton, a lad of sixteen years of age. We hope it will be found a specimen of the young artist's labours which will entitle him to public notice and encouragement."

Brocas, another young artist of the day, engraved for the *Anthologia* as well as Clayton, but after the cessation of the publication, at the end of 1794, we do not know at present in which direction the labours of Samuel Clayton were devoted. In 1840-1 the *Irish Penny Journal* was projected, and like the first volumes of the original *Dublin Penny Journal*, it had George Petrie, John O'Donovan, Martin Doyle, Thomas Ettingsall, Edward Walsh, Clarence Mangan, and the Rev. James Wills, as contributors, along with some new hands, including William Carleton, H. D. Richardson, John Keegan, and others. Samuel Lover, we believe, contributed one or two metrical pieces. Benjamin Clayton here again engraved a number of the illustrations. The volume of the *Irish Penny Journal* (of which only one was issued), being brought to a close in the fifty-two issues, is an excellent volume, and contains many antiquarian notices and Irish literary matters, historical and general, of an important kind. Many attempts have been made in our memory to imitate and supply the place of these native penny publications of 1832-6, 1840-1, but they have invariably proved failures, and the majority of them deserved no better fate, for they were wretchedly got up, written, and illustrated; and the paper on which some of them were printed would disgrace a street ballad. The periodicals with which the names of Petrie, O'Donovan, and others whose names we have already mentioned, were connected, will always be sought after for the antiquarian literature they contain, and the racy Irish tales, illustrative of the bygone customs, manners, and pastimes of the Irish peasantry. In America and Australia these journals would fetch a good price; and were a re-issue of them to be made, with additional matter, by a spirited publisher, we are certain they would well repay the cost. Philip Dixon Hardy, a well-known Dublin printer and publisher, whose name is con-

* Of early topographical and descriptive works, some half historical and legendary, and others chronicles of events though partly descriptive of places, are—Camden's *Topography*; Holingshed's, Hanmer's, Camden's, Stanilhurst's and Campion's *Chronicles*; and Fynes Morrison's *Itinerary*. These, however, and some others of a kindred class—a list of which will be found in the late Thomas Davis's volume of *Literary and Historical Essays*,—are more suited to the study of the mere historical student or intending historian.

nected with the last two volumes of the *Dublin Penny Journal*, also published some literary ventures. The *National Magazine* was one, and a *Literary Gazette*, we believe, was the name of the other, about 1830-1. Carleton contributed to the former, and Petrie, if we remember aright, commenced a sketch of the "Rise and Progress of Fine Arts in Ireland" in the latter. This last sketch re-appeared in the first volume of the *Dublin Penny Journal*. The *Dublin University Magazine*, which appeared first in the beginning of the year 1833, supplied a place in the literature of this country, and appealed for a time to a constituency of a higher social grade, but its price placed it above the reach of the masses. All could not afford half-a-crown, and many who could afford it hesitated to give it.

Among the contributors of the *Dublin University Magazine*, within the first decade, were William Carleton, the O'Sullivans, Samuel Ferguson, Samuel Lover, W. Archer Butler, Rev. Caesar Otway, W. R. Wilde, Clarence Mangan, Isaac Butt. Others, including D. F. McCarthy, John Francis Waller, were, we believe, contributors of a later date. J. De Jean, John Fraser, the Young Ireland poet of the *Nation*, contributed, we believe, some poetic pieces. The recently deceased racy novelist, Charles Lever, was a contributor for many years to the *University Magazine*, and became the editor in 1842, and continued for three years. Scattered through the many volumes of this native publication there are several valuable contributions cognate to the subject heading of these papers of ours.

In 1842-3 a new *Dublin Journal* was started, unillustrated, the price of each number being three halfpence, instead of one penny. It continued, however, for little more than a year, though it was well conducted, and its literary matter above the average of that day. Unlike the previous Dublin periodicals, topographical and antiquarian notices were not its leading features, although it contained some. Short literary essays on various subjects, social and scientific, and well-written tales and poetry, made up each number. Edward Walsh contributed some stories and poems, and J. De Jean broke ground in this publication about the same time as he began publishing some of his political poems in the columns of the newspapers. Other older writers, whose names were previously known in connection with former publications, also contributed. This journal was published by Tegg, in Lower Abbey-street. In 1846 another similar attempt was made from the office of J. Le Messurier, Lower Abbey-street. This venture was called the *Irish National Magazine*, and was very creditably got up and written, yet it it never reached half a volume. It had some topographical notices on "Visits to Remarkable Places," by the Author of a "Guide to the Blackwater," &c., and some of its prose and poetical matter was contributed by names we have already mentioned. Incidentally, we may here note that from 1845 to the summer of 1848, and particularly in the beginning of the latter year, several attempts were made in starting both periodicals and newspapers, but few of them outliving three months—some struggling on for two or three weeks, and others dying with their first issue. The best of them are scarcely worth referring to here at length, as they do not afford any available complement of that kind of literature which we have been anxious to allude to in the course of our review. Since the last-named year to the present hour, nearly a quarter of a century, nothing remarkable in the way of literary enterprise has taken place, and of what has we refrain to speak at present. Newspapers and politicians have increased, but the rare and racy, the loving and indefatigable type of literary and antiquarian artists, archaeologists, travellers, and topographers, are fastly dying out.

We must not omit to mention here the useful handbooks and guides to several districts through Ireland by Mr. W. F. Wake-

man, nor Mr. W. R. Wilde's *Boyne and Blackwater*, and other cognate contributions. These works afford useful as well as entertaining information.

There is no "Tour to Connaught" or the other provinces made now on foot or by mail-coach like those in the days of Charles Vallancey or Frances Grose in the last century, or George Petrie or Caesar Otway in the present. The railway engine and the electric telegraph have disenchanted almost all the hoary old ruins and secluded spots in our island, and a race of amateur botanists, geologists, and zoologists, with their lens, hammers, bottles, and books, during vacation time, swarm over the face of the country, like locusts, destroying what they do not understand or can never create. They are students, of course, of a new school, as we are of an older one, and we must not speak harshly of their vagaries in the pursuit of science. Their path is easy compared with what their fathers and grandfathers trod. The diligent antiquary and topographer and the accurate surveyor has lived before them, and has marked and mapped each cross-road, mountain, river, and ruin, on their track. Tower and abbey, age and uses, legend and fact, all are before them to read and learn without trouble, but the men who performed for their country this useful labour are nearly all in the grave of their fathers. We cannot help looking back to olden times and olden friendships, and in concluding our somewhat desultory review, exclaiming, in the language of our national bard—

"Thus shall memory often, in dreams sublime
Catch a glimpse of the days that are over;
Thus, sighing, look through the waves of time,
For the long-faded glories they cover."

DUBLINIENSIS.

THE STRENGTH OF BUILDING MATERIALS.

(Continued from page 167.)

Stone.—Passing on to another material, let us see whether we ought to rest satisfied with what we know about building stones.

Here again the majority of experiments made have been upon very small specimens, such as small cubes under compression, whilst the recorded results vary with each set of experiments, according to the amount of accuracy capable of being arrived at by the machinery made use of, as well as the skill and care with which the experiments were made and recorded.

If we take a stone which has been more largely used perhaps than any other, namely, Portland, we learn from Barlow that its crushing strength ranges from about 1,384 lb. to 4,000 lb. per square inch, whilst in the experiments made by this Institute, and recorded in your sessional papers for 1864, the mean resistance to crushing, per square inch, arrived at was, for 2-in. cubes, 2,576 lb.; for 4-in. cubes, 4,099 lb.; and for 6-in. cubes, 4,300 lb.

According to Rennie its crushing strength may be taken as 3,729 lb. per square inch, which has been followed by Molesworth in his "Handbook," whilst in Hurst's "Handbook" it is given as 2,022 lb. per square inch.

Now the many varieties of Portland stone, apart from and different method or course pursued in making the experiments, and the amount of seasoning the blocks had undergone, all points which should be carefully recorded, would fully account for the manifest discrepancies between these results; in addition to which, the direction of the natural bed of the stone, which in a small block of Portland might escape detection, would no doubt make a considerable difference. For instance, turning to some experiments by Mr. Kirkaldy on the resistance to thrust of Douling stone (a Somersetshire oolite), which I believe to be the only known experiments on this point—if we except two on York paving and Bramley Fall stone, recorded by Rennie, in which the crushing strength both with and against the strata are given as precisely the same, a coincidence too good to be true—the advantage of laying the stones on

their natural beds is considerable, increasing rapidly with the increase in height of the block, in proportion to its sectional area; which, I think, is what we should naturally be led to expect, if we look upon the block as approximating, more or less, according to the amount of lamination in the stone, to a number of thin columns placed side by side. More experiments, on a larger variety of stones, are much wanted to throw additional light on this subject.

With regard to the supposition that the crushing strength of stone increases with the size of the blocks under trial, there has yet been too little proof put forward on which to lay down any law. In fact, the few experiments made by Mr. Kirkaldy, bearing on this subject, some of the results of which have been placed at my disposal, go to prove that there is no increase in the resistance to crushing, consequent upon increase in the size of the blocks.

With regard to another of the oolites, namely, Bath stone, there is, I think, a good deal of misconception, which a careful series of experiments would soon clear up. For instance, Farleigh Down, being a little more expensive than Box Ground stone, is very generally looked upon as the best and strongest description of Bath stone for outdoor use, and is accordingly very often insisted on in specifications, the fact being that, on account of the stone being more difficult to get out of the quarries, especially in large blocks, the price runs a little higher, whilst in strength or endurance it is not known that it can claim any precedence over Box Ground stone. From the experiments already referred to as recorded in your sessional papers, it would appear that Corsham stone is considerably stronger than Box Ground, though this is opposed to the results of other experiments. The durability of Bath stone mainly depends on its being placed on its natural bed, which can only be detected by an experienced eye, or by working the stone; though when not so placed it soon reveals the secret, especially where exposed to the weather, by its cracking and peeling away on the face.

Much also depends on its being well seasoned, or air dried, before being put into the work; therefore the stone should only be got from quarry-owners who keep large stocks of seasoned stone on hand. If quarried in the spring of the year, and stacked at open order during the summer weather, it is doubtful whether Corsham stone is not well able to resist the weather, though it is generally considered only fit for indoor work.

Artificial drying, which has sometimes been resorted to, should not be allowed. In one case a large quantity of picked Bath stone, which had been dried by heat, had to be condemned, and, I believe, led to a lawyer's bill, in consequence of the breaking up of the stone under exposure to the weather, owing, I fancy, to the unequal contraction and expansion of the dried and hardened surfaces, and the soft and green interiors of the blocks. I have seen stone, which had worn well exposed to the weather, crumble away on being shifted to the inside of a house.

With regard to sandstones, the information contained in architectural and engineering handbooks is next to nothing; in fact, in Molesworth the whole subject of sandstones is comprised in the information that their crushing strength is 5,000 lb. to the square inch, which, being an easy round number to remember, might with equal reason be adopted as the crushing strength of all stones.

Very little is known with regard to the transverse strength of different kinds of stone, though there is no doubt that some are much more capable than others of taking a bending stress.

Stone is a material specially unsuited to resist any stress except compression, and it is the true appreciation of the nature of stone as a building material, by the almost exclusive use of it to the best advantage, namely, under compression, by the Mediæval builders, that, to my mind, marks their great superiority, as scientific builders, over their predecessors, of more refined classic ages.

In practice, however, we constantly find stone subjected to bending stress, and that further information under this head is required, struck me very forcibly some little time ago on seeing some stone stairs, two stories high, being carefully propped up with wood, many of the steps having split right across close up to the wall. The steps were feather-edged, of Portland stone, 11½ in. treads, and 6½ in. risers, and had been exposed to the ordinary traffic of an office for about sixty-two years. The treads being much worn, a mason had been at work cutting them down at the top, preparatory to fixing an iron nosing, and filling the treads up level with asphalt, when the step he was at work on cracked close up to the wall, probably from the jarring caused by the strokes of the chisel; shortly after, several of the steps above cracked too, being no longer supported by those below, and being evidently unequal to do the work suddenly thrown upon them. Stairs with the steps only supported in the wall at one end are of constant occurrence, and serious accidents have sometimes occurred from their sudden failure.

Enough has been said, I think, to prove that more knowledge is required as to the special qualities of different kinds of stone, and their applicability to particular uses; but there is still another point about which there is not at present any certain knowledge, namely, to what extent the shape to which stones are cut, and the manner which they are bedded, affects their strength.

I have the details of one or two interesting experiments to ascertain the effects of lead placed, as is frequently done, between the joints of cut stone columns, &c., with the object of distributing the stress uniformly over the beds of the stone. The experiments were made upon circular blocks of Bath stone (Box Ground and bottom-bed Corsham Downs) 3 ft. long by 10½ in., and 15 in. diameter, or one set twice the area of the other; the lead being cut 2 in. less in diameter than the beds of the stones themselves. The results point to the conclusion that lead so placed between the beds of the stones, reduces the bearing strength of a column to considerably less than that of a column of only half its sectional area, in which the stones are completely bedded. On examining the sheets of lead used in the joints, they seem to have been under compression at a very few points only, and not to have in any way tended to equalise the pressure over the area of the joints. These experiments also seem to indicate that raking out the joints of cut stone work, to save the arrises in cases of any compression of the joints, when bedded in mortar, should not be carried too far. Such questions are, at any rate, worth investigation.

In all experiments upon stone, it is essential to know the exact description of the stone, the quarry it came from, and, if possible, the particular bed in the quarry. The time the specimen has been quarried should be stated, as some stones when green will stand very little stress, but harden considerably, in a longer or shorter time, when exposed to the air. If the specific gravity, or weight per cubic foot, of the specimen were given, it would afford some clue to the state of the specimens experimented on.

While on the subject of stone, I may refer to an artificial stone, widely used in the present day, viz., concrete. I think you will agree with me that a series of carefully-made experiments on the strength of different kinds of concrete would be of great value, under varying conditions, as to the nature of the lime and cement used, the description of ballast, proportion of large and small stuff, and mode of mixing.

With good Portland cement, well burned and well ground, I should use with confidence for ordinary foundations twelve ballast to one cement, provided I was sure of its being properly mixed; but with ordinary workmen, not properly drilled in mixing the materials, ten to one would probably be more advisable. It would be well to know how much the strength of concrete is affected by the diffe-

rent methods of mixing in vogue. For my own part, I should insist upon the mixing being performed as follows:—A yard-measure to be half-filled with ballast, then the measure of cement to be added, and the yard-measure filled up to the top with ballast. On removing the measure the ingredients get partly mixed, and the cement does not get blown about so much as when placed at the top of the heap; it should then be turned over twice dry, and shovelled into a third heap; each shovelful being sprinkled from the fine rose of a watering-can as it is thrown on the heap, whence it may then be removed to the trenches. This block has been broken with a pick out of a newly-built dock-wall, in which 12 to 1 Portland cement concrete, mixed in the manner described, was employed, and I think it is strong enough for any foundations. In making experiments, the mixing should be done in bulk, at least half a yard cube being mixed at a time, and not in small quantities, which are more carefully prepared than would be the case in practice; and the blocks should be at least 12 in. cubes.

Passing from concrete to mortars, the results of some experiments made for the Patent Selenitic Mortar Company show that, in mortar made with common stone lime,—Burham, or grey chalk lime, similar to Dorking lime, was used,—3 sand makes a stronger mortar than only 2 sand, and stronger again than 4 sand; which is probably due to 3 to 1 being about the point at which more sand would weaken the cohesive and adhesive properties of the mortar to a greater extent than its setting or hardening would be promoted by increasing its porosity. With selenitic mortar, 5 sand was the best mixture to resist thrust, then 4, then 6 sand; but for adhesion and to resist tensile stress, 4, and then 6, and then 5 sand. From which we gather that 3 to 1 is the best proportion of sand to stone lime in common mortar, and 6 to 1 in selenitic mortar, since the latter gives a mortar possessing double the strength of common stone lime mortar. However, in using the selenitic mortar at Chatham lately, 6 to 1 was not found to give such good practical results as 4 and 5 to 1, which is being now used. Although the 6 to 1 mortar set very hard, it was so short that it took longer to work, the loss of time outweighing the saving of sand. The proportions now being used are 4 to 1 for exterior work, and 5 to 1 in the body of the walls. Mr. Street has, I believe, had some further experiments made with the selenitic mortar in connexion with the New Law Courts.

ST. AUGUSTINE'S CHURCH, DERRY.

THE new church of St. Augustine has been opened and consecrated by the Lord Bishop of Derry. It has been erected on the site of the former edifice, and is in the style known as thirteenth-century Gothic, the period of the early Augustinian monastery. The building consists of a narthex 21 ft. by 6 ft. 6 in., abutting on the western façade, and a nave 60 ft. by 21 ft. with chancel extending to the limit of the former eastern gable. An organ transept breaks the outline of the north flank, and the robing-room abuts upon the south side of chancel. The roofs are open-timbered, the principals of the main roof dividing the nave into four bays. These rest on arched ribs and corbels, and are spaced again by half principals resting above the side-lights. The church is heated by means of one of Porritt's underground stoves. The internal fittings are excellent, and of suitable detail to harmonise with the architecture of the restored church. The chancel contains a very handsome three-light window, with elaborate tracery in head. The communion rails are richly foliated, and coloured in ultramarine and gold. Over the communion-table, which is covered with a rich crimson velvet cloth, are the words, "Do this in remembrance of me." The table and fittings are in oak. The floors are inlaid with enamelled encaustic tiles of rich and striking

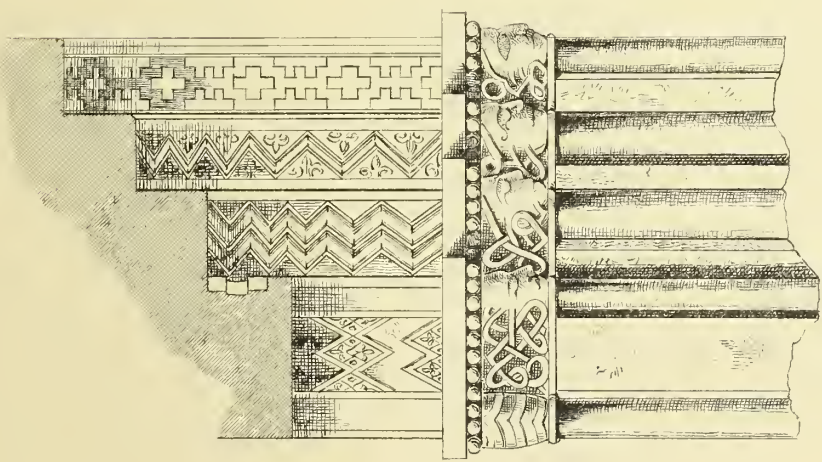
pattern, and the walls are lined to a height of 4 ft. 6 in. with similar tiles of beautiful enriched design. In these the symbolic wheatsheaf and vine are judiciously introduced, and the rich, yet chaste effect of the chancel, with the whole of its perfect appointments, is still further enhanced by the window-seats, steps, and margin to platform. The nave is lighted by two-light windows, cusped and pierced with quatrefoil openings in heads. The narthex, robing-room, and transept have cusped lancets. The western gable is pierced with a large wheel window filled with cinque and quatrefoil lights, and is surmounted by a well-proportioned bell-turret. The shafts of the doorway, with those supporting the ribs of the chancel arch, and the right shafts at the angles of the bell-turret, are of Douegal red granite, polished, with cut-stone bases and foliated capital. The windows are filled with leaded lights, with ruby and blue borders. The interior wood-work is stained and varnished. The walls, externally, are faced with Creevagh stone, and the windows, doorways, tracery, and bell-turret are of an excellent stone, supplied by Mr. Phillip Doherty from his Dúngiven quarry. A pleasing variety and effect has been secured in the dressings by using a red sandstone for the quoins, which is supposed to have been brought from quarries near Redcastle, on Lough Foyle, and is of a similar kind to that used in the erection of the cathedral, the City Walls, and the old churches of Enagh and Culmore. This stone was found in considerable quantities in the old building, and is in a good state of preservation. The design has been very effectively carried out under the personal superintendence of Mr. John Guy Ferguson. Messrs. G. and R. Ferguson, were the contractors.

CORPORATION ACCOUNTS AND CORPORATION PRACTICES.

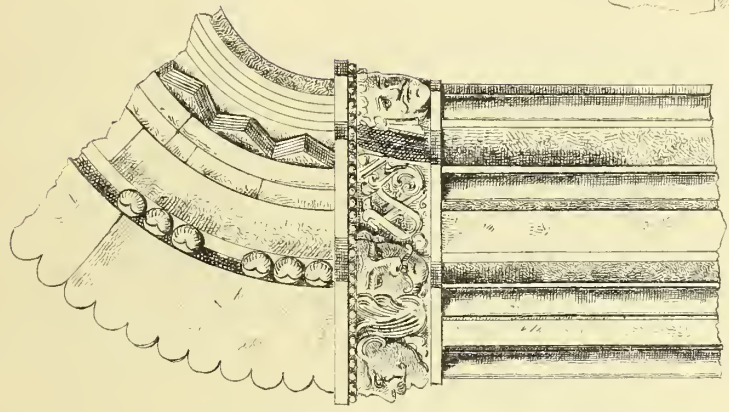
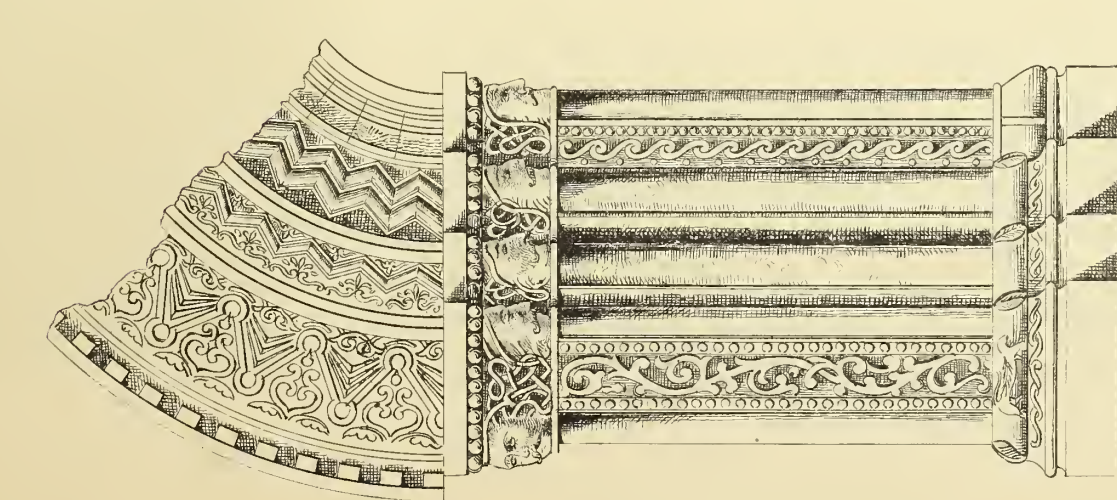
IN the interest of our fellow-citizens, this journal has persistently advocated a Government audit of the Corporation accounts, and when we had at last secured the appointment conformable to the provisions of the Local Government Act, the inquiry was set aside by the underhand dealing of a clique in the Town Council, who hastened to deceive the viceroy with a number of specious pretences. We will shortly know the reason why Lord Hartington yielded to the overtures of the deputation made on behalf of the Corporation. It may be remembered that we insisted not only for an inquiry into the disbursements, gratuities, and superannuations made and provided for the last two or three years, but we asked for an inquiry extending over the last ten or fifteen years. We knew thoroughly well that the Corporation's own audit was a delusion and a farce, and that those appointed to prepare the audit were mere creatures of the Town Council, agents, or hirelings, or—but no matter what else they may have been. One thing was clear, that the Corporation auditors had no power; they could not surcharge, and if they even hinted at such a stretch of irresponsible authority on their part, they might take up their bed and walk. The following is the order made by the House of Commons upon Colonel Knox's motion:—

"Audit of Dublin Corporation Accounts—Return ordered of copies of correspondence between the Irish Government and the Dublin Corporation on the subject of carrying into effect the provisions of the Local Government (Ireland) Act respecting the audit of accounts; names, profession or occupation, and qualification of the persons who audit the accounts of the Dublin Corporation; dates of publication of the accounts of the Dublin Corporation for the year ending 31st August, 1864, '65, '66, '67, '68, '69, '70, and '71 respectively."

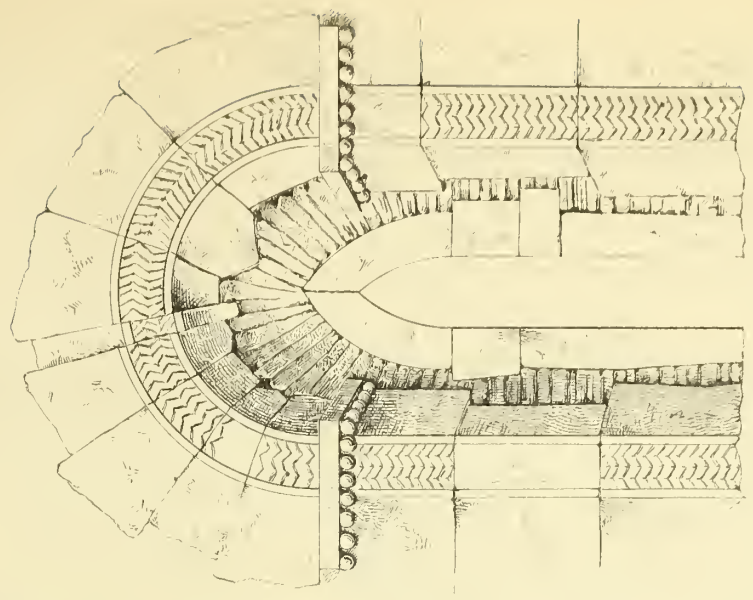
Even in this return, when made, we will not have what is essentially required. We may learn a little more about the nature of certain correspondence that passed, and concerning the status of some individuals, but the beautifully cooked and glossed over accounts are likely to escape the dissection that they should



DOORWAY
KILLESHIN CHURCH
QUEEN'S CO



PORTION OF WEST DOOR
INCHAGULE
CO GALWAY



EAST WINDOW
ST PETER'S CHURCH
FERNS

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

undergo, extending back to the era of certain great works known to everybody in this city. Even in the published statements of the Corporation we are presented figures which are enough to stagger one's comprehension as to the extent of the outlay incurred in law expenses, which cover, of course, a large amount of criminal litigation—a practice in which our town council have for years indulged. In the late report *in re* the streets we alluded to the enormous amount paid for parliamentary and law expenses, and for ten years the Corporation had nothing to show for the money expended but the repair of a couple of streets. What can be expected from a council wherein jobbers have for years existed and still exist, driving bargains for their own personal advantage in promoting bills or opposing bills, and, as soon as the steam is worked up, quietly withdrawing, pretending they were acting under an error. The warfare once over, leading promoters and oppositionists shake hands and hob-nob together, and mutual congratulations take place, and one side assures the other that nothing factious was intended. We have an instance of how oppositions are got up, in the matter of the Dublin Central Station scheme, which for several days occupied the attention of a select committee in the House of Commons. Witnesses were brought up to give evidence, who knew no more about the practical bearing of the subject than a pig did of the solar system. That animal is said to be gifted with the power of seeing the wind, and it must be confessed that some of the witnesses were susceptible to the influence of raising that element; and if not otherwise needy, a refresher is not to be despised by a "Paddy from Cork" or Cork-hill.

THE INSPECTOR OF PRISONS AND THE BOARD OF SUPERINTENDENCE.

We gave in our last issue an epitome of the statement of the Hon. Mr. Bourke, Inspector-General of Prisons, wherein he made many serious charges against the Board who are appointed by the Corporation. We find that our summary and observations have been extensively quoted by the London and English provincial Press, and we are not surprised to find that the Board of Superintendence feel very much annoyed, and aggrieved, shall we say? at finding their lax conduct so thoroughly posted over the United Kingdom. In the published rejoinder to Mr. Bourke's facts, we have no answer at all to his substantiated charges—in fact there is nothing shown except a bit of fencing worthy of the nominees of the Dublin Town Council. What is the use in comparing the expenses of some years back with the expenses of to-day, and proving thereby that they have reduced the cost? The comparison that Mr. Bourke adduced was between several county gaols in Ireland and those in Dublin, and his figures plainly proved that the cost of our city prisons was altogether out of proportion with the number of inmates. He also instanced illegal gratuities, but the reply of the Board of Superintendence altogether ignores the vital questions at issue. They have had charge of the city prisons for the last twenty years, and though on their own showing they have reduced the expenditure of late, they have allowed some of the original evils of their management to exist. The assumed wrath of one or more of the ex-members of the Board who are members of the Town Council is amusing, and the tall talk of another Town Councillor of the *Bombastes Furioso* genus is thoroughly enlivening. It is not to-day nor yesterday we vindicated the rights and privileges of municipal bodies, and defended their actions when we thought their liberties were endangered. We are sorry, however, to say that the Corporation of Dublin to-day cannot be defended. They have, by their systematic bad conduct and indiscriminate bungling and scheming measures, beggared and disgraced our city, and left it a butt for scorn to Great Britain,

and a plague spot on the map of Ireland. In respect to the Prisons (Ireland) Bill introduced into Parliament by the Marquis of Lansdowne, in justice to this city, if we understand its nature aright, we think that it needs revision. This city cannot possibly bear more taxation without working serious evil to every commercial interest belonging. If the Corporation stood up in their opposition to this new Prison Bill with clean hands, they would have a better chance of success in leading to the needed amendment of the Bill. Having already overtaxed the city themselves, and having had to mortgage every available rate in the city for the purpose of carrying out ill-digested engineering schemes, we do not wonder indeed that they are fearful that a dead lock will be the sequel one fine morning, and that the rickety machinery at the City Hall will suddenly collapse.

CIVIC LYRICS.—No. XVI.

JOHN FREEMAN WAS A CITIZEN.

Air—"There's na'e good luck."

John Freeman was a citizen
Of Corporate renown,
Who floated bubbles now and then,
Both in and out of town.
His soap balloons were wondrous fair,
And 'neath a roof of glass
He blew them from his Civic chair,
By aid of laughing-gas.

Chorus.

This great man had a fertile brain,
Eclipsing Barnum quite;
He gathered honey all amain,
And held it all as tight.
The Prince of Humbugs never ran
Like him on tram or rail;
And even Train, the "Coming Man,"
Ne'er sported such a tail.

Chorus.

With press of public matters once
Came water on the brain;
And though his labours met response,
His friends grew sparse again.
To pump the public feeling up,
John Freeman pushed with tact
His spoon-bill-sucker-filling-cup
Through the Main Drainage Act.

Chorus.

When Central Railway schemes well soaped
Were argued in the House,
And needy members' tongues were oiled
Or shut up by—a douse,
John Freeman stood up like a man
Who never turned his coat,
And swore the Puddle Station plan
Deserved the civic vote.

Chorus.

On Committees or on the Press
This great man's voice was loud;
He talked pathetic on distress,
But shunned the ragged crowd;
He loved the Church for what it brought,
And, crab-like, he moved back
Or forward—as he shrewdly thought
It saved him from attack.

Chorus.

But pitchers that go to the well
For years, are cracked at last;
And patience has, some wise folks tell,
Limits that may be passed.
The Waterman he slipped one day,
And fell with pitcher rent,
And then the Council stowed away
Their chimney ornament.

Chorus.

CIVIS.

THE LONDON STRIKE AND LOCK-OUT.

Up to the period of our going to press, there were upwards of six thousand men of the building trades locked-out. We give the following returns, though they are incomplete:—Carpenters and joiners, about 1,600; masons, 800, of whom 250 and upwards are reported to have left London for work in the provinces; bricklayers, 200; plasterers, 300; painters, 300; smiths, 150; labourers, 1,500; and other trades (plumbers, sawyers, and slators), upwards of 300.

The masons, carpenters, painters, and other trades held several meetings during

the last week, and proposals for arbitration was submitted on several sides. Considering that there are upwards of 1,000 master-builders in London, the strike, as yet, has not assumed the gigantic proportions that some believe. In 1859 the strike, when at its highest, did not exceed more than 10,000 men. Some of the small builders have joined issue with the masters in the present lock-out, but numerous others are profiting by the dispute. Arbitration, of course, means a compromise; but, if it be an honourable one, there is nothing to regret on either side.

We trust, therefore, that an arbitration will take place between the masters and the men; for a prolonged strike will work serious evils, not only to the parties engaged, but to the general trade of the kingdom. There is no disputing the abstract right of the men to increase their wages or lessen their hours of labour; and if they can succeed in accomplishing their desires, and maintaining the vantage ground they may secure, without working injury to the trade of the British islands, and their own trades in particular, we at least will not regret their course of action. Strikes are seldom an unmixed good, and we know by the experience of the last thirty years that every great strike has resulted in throwing into the hands of foreign nations a large amount of the labour hitherto performed in these countries. It is also an absolute fact, that strikes lead more and more to the introduction of machinery into every branch of trade, and consequently to the reduction of manual labour in those branches affected by strikes.

THE ARCHITECTS IN COUNCIL.

THE late Conference of British Architects, held in London, of whose proceedings we give an abridged report, has been productive of much good, though it were to be wished that some definite settlement was made to the vexed questions that came before them for discussion. It is doubtful whether the new schedule, in regard to competitions, which has been carried will work any better than the old code. Time will tell, and it is perhaps better to await the result of its working than ventilate misgivings. We trust, however, that the new rules will be found to answer in country and town, and that none of the legal gentlemen will fatten on the possible litigation that may arise when precedents are looked for or produced. This aside, many useful papers were read and matters discussed of great importance to the profession. We were sorry to see an almost utter absence of the Irish Contingent from the sittings of the Conference. No paper, that we could learn, was entered or read by any Irish architect. Mr. Fogerty, it is true, had some part in the various discussions that took place, but that architect though hailing from Ireland is no longer a resident among us. All the addresses and the papers read, were of the most practical and useful kind, and the proceedings *in globo* is a valuable contribution to the history and practice of modern architecture.

CORRESPONDENCE.

DEPUTY COUNTY SURVEYORS OF IRELAND.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—At the last meeting of the committee of the Deputy County Surveyors' Association of Ireland, there was a wise plan adopted of sending a deputation to London to watch the proceedings of Lord Hartington's bill through the House, and to act in unison with the County Surveyors' committee. I am heartily glad of this. Now is the time for the various deputy surveyors in Ireland to strike off the apathy which made them so despondent. Let "*Perseverentia et Labore*" be our motto, and "we shall not fail." Thanks for past favours.

ASSIST. CO. SURVEYOR.

Bagenalstown, June 25, 1872.

THE GENERAL CONFERENCE OF BRITISH ARCHITECTS.

ON Monday evening, the 9th ult., the second General Conference of Architects was held at the rooms of the Institute, Conduit-street, London. The meeting was well attended by London and English provincial architects. The Scottish and the American Institutes were also represented, but we regret to say, the Irish members of the profession were conspicuous by their absence. After Mr. C. L. Eastlake, the Secretary, reading the minutes of the last ordinary meeting, and announcing several contributions to the Library, the presentation of Royal Gold Medal and Institute prizes for 1872 commenced. The first was awarded to Herr Schmidt, of Vienna, the Secretary of the Austrian Legation having attended on his behalf to receive it. The Soane Medallion was gained by Mr. Redding. The Silver Medal of the Institute for measured drawings was gained by Mr. Fred H. Head, for his measured drawings of Tattershall Castle, Lincolnshire. The Silver Medal of Merit was presented in this competition to Mr. F. G. Deschon for his drawings of All Saints' Church, Eddington, Wilts. Mr. John Langham and Mr. Brien Oliver received certificates of merit for the excellence of their works. A Student's Prize in books was gained by Mr. W. Scott for his design for a staircase. Mr. Peek's prize of £42 for the best set of measured drawings illustrating the restoration of Eastbury Manor House, Barking, was gained by Mr. Streatfeild; and the same gentleman's prize of £20 for the second best set of measured drawings illustrative of the same subject was obtained by Mr. P. J. Marvin. Mr. Peek's prize of £10 for the best set of drawings illustrating the Convent Gateway, Barking, was also gained by Mr. P. J. Marvin. The President, on the presentation of the several prizes, complimented the recipients in suitable terms. It was announced that five candidates had presented themselves this year for the preliminary examination, and all had passed in a very satisfactory manner.

The President (Mr. T. H. Wyatt) then proceeded to open the Conference by delivering the following

ADDRESS.

Let me begin the few words I have to offer by reminding you that the Conference is repeated this year in order to bring up the reports of the several committees appointed at our meeting of last year; but for the future it is proposed that these Conferences shall only take place biennially. The main difference between the programme of last year and the present is this: that in 1871 it extended over a wider field, and embraced more subjects. Five papers were announced for each meeting, but this was found to leave too little time for discussion, and our bill of fare this year will be less pretentious. The attention of the Conference last year was divided between Architecture as an art and as a profession. The first elicited several interesting papers; but the latter resulted in some important resolutions, the offspring of which are the reports we have this year to consider, and which will necessarily give a drier and more business-like character to our meeting. When I had the honour last year of welcoming to London, in the name of the Royal Institute of British Architects, those members of the profession practising in the provinces who are not actually associated with this Institute, but whom we were anxious to bring into counsel with us on matters deeply interesting to our profession (and, let me add, hardly less so to the public), I felt it my duty to lay before you at the first meeting some of those points which seemed most important and pressing, and on which unanimity of practice was most desirable. The principal ones were, I think, subsequently discussed and considered in a careful and dispassionate spirit; and I venture to believe you will find that the three subjects which were then delegated to the consideration of separate committees have received great care and consideration at the hands of the gentlemen forming those committees, though their labours have been so sneeringly alluded to in one of the professional papers. Whether the various suggestions contained in those reports be generally accepted or not, of this I am quite certain—that the whole body of our profession stands deeply indebted to the gentlemen forming these

committees (and especially to those who acted as the secretaries), for the great amount of time and labour bestowed on these subjects. Gentlemen, these reports will be officially submitted to you tomorrow and Wednesday for consideration and discussion, so as, in the words of your own resolution of last year, "to insure (as far as practicable) the greatest unanimity of action and opinion amongst the whole body of professional men in the United Kingdom." On one of these subjects (viz., on the employment of surveyors) considerable difference of opinion will be found to exist, and to such an extent that the Council did not feel able formally to adopt this report. It therefore will come before you as the suggestions of the committee. Whether, on further discussion, this matter may be put on such a basis as to insure something like uniformity of practice, or whether it had better be left to the individual action of members, remains to be seen. Happily, it is one involving no question of professional honour or etiquette, so that each architect may remain at liberty to adopt that course which, under the special circumstances of his own case, he may think most conducive to the interests of his client. The committees have, I believe, adopted the only practical course that was open to them: they have sought the opinions of large numbers of their professional brethren, and these opinions (bound together and now lying on the table) form a most bewildering mass of evidence, hardly less so than that recently laid before the public in the case of a celebrated "claimant." The secretaries (failing to find those "tattoo marks" which might throw clear light on the subject) have had to analyse and classify these conflicting views as far as possible, and upon the preponderance of those opinions to a great extent have been based the reports. Many of the replies to these inquiries have been most considerate and suggestive, expressing readiness to act upon the views expressed by the majority at the Conference; one or two, on the other hand, dealing with the subjects on which their views were asked in a very selfish and opinionated manner, declining to be bound by the views of any majority, and threatening resignation if it was proposed that *their* views and practice were not to be sanctioned! I should wish these gentlemen to consider how they can reconcile such independence of action with the attainment of that *esprit de corps* which it is acknowledged on all hands is so much wanting in our profession. Gentlemen, I have but to urge that we shall enter on these discussions with as much abnegation of self and individual prejudices as human nature is capable of; that we shall respect the opinions of others, though we may differ from them, and that we should not fail to remember how many difficulties architects practising in the provinces have to contend with, and in some instances how impracticable they may find it to assimilate their practice in all particulars to ours in the metropolis. Nor is this all; we must remember that we have to deal with a public who will be too ready to resent and resist any rules of practice or professional etiquette which are not based on honourable and equitable conditions. We live in days of energetic and constant competition: an incessant professional struggle, when there are almost as many architects as clients, and when, in this so-called land of liberty, every man is free to employ whom he fancies, be he builder, bricklayer, or architect; and being thus free is not likely to allow himself to be bound by professional rules which he considers one-sided, and which he will repudiate as a sort of "trade-union rule" to be resisted at all costs. A recent case, tried at Durham, bears strongly on this view, and shows how ready the public—and the clergy not the least so—are to dispute professional customs and charges; but, to my mind, the conflicting evidence given by architects at that trial was not the least painful part of the proceedings. Since we attempted last year our first Conference, the American architects have held their fifth congress, and with a go-a-head rapidity and energy which belongs to that nation, but which, in spite of the gratuitous advice so freely given, I venture to think we shall do well not to attempt to imitate. Their congress began at 3 o'clock in the afternoon of the 14th of November, and by the following evening they had read and discussed no less than twelve reports from the six chapters and committees of their Institute. They had an annual opening address from the President, three closing addresses from the Presidents of Harvard College, the Institute of Technology, and the late Master of the Leeds School of Art; two other practical papers, sundry discussions, and general Institute business. The conditions under which we should start in such a race are thus described in a professional journal:—"Bound down by the swaddling bands of red tape, impeded by precedent, choked by apologies and compliments, blinded by the dust of prejudice, and deafened by the monotonous buzz of self gratulation, the architects of England have grown to be wearisome to the public."

Thus weighted, gentlemen, how could we compete in such a contest? Better far to assume at once the rôle of the tortoise than attempt that of the hare. I venture to believe that the American architects have found the question of competition quite as difficult to deal with as we may, and in the words of one writing on this subject, "it will be found that in the New World, as in the Old, competition is attended by selfishness, jobbery, and iniquity." The most useful result of the American meeting will, I think, be found in the discussion on fire-proof construction, and in their recommendation "of thick solid walls; solid constructions in floors and partitions; brick or artificial stone rather than granites, limestones, or sandstones; and oak posts rather than iron or stone columns." Gentlemen, we do not meet under the brightest conditions. Our profession seems, as it were, to be under a cloud, to be affected by some unknown influences, as the weather has lately been by atmospheric ones: violently assailed both in the leading periodical of the country and in the most influential of the daily journals. We have, in addition, members of our own profession publicly joining in this unjust crusade, and indulging in personalities of a most painful and uncalled for nature; and, though last not least, we seem about to have revived a sort of "battle of the styles"—a feud which I at least had hoped was buried with that of the gauges. Whilst I think it would not be very difficult to show how unjust are many of the charges made in the former (the *Quarterly Review*), how unsound its reasonings, or how impracticable its suggestions, or to find a motive for the animus displayed in the latter, it will be well for us to consider calmly why at this particular moment such a storm should burst over our heads, and why the works of British architects, which certainly are not thus discreditably esteemed on the continent, should be so abused in England. Is it to be attributed to the defective professional education of the English architect? to the want of examinations and a diploma to practise, as in the legal and medical professions? or to a higher standard of public taste requiring works of a higher class and purer taste? I doubt if to either of these causes is due the existing state of things; but if education is defective, that, I think, will soon be changed, for I believe there are abundant means now within the reach of the diligent student in architecture, not only with reference to the study of the true principles of all design, but to the artistic and constructive parts of his profession. I have great doubts whether the diploma could now be realised for our profession, and certainly I do not believe as yet in the great advance of public taste, or we should not see such monstrosities as now find favour and approval. But supposing the professional studies of young architects leave much to be desired, what shall we say of the defective taste and information of the self-constituted architectural critics, who sometimes take the world by storm through the vehemence of their assertion and the self-complacency of their dogmatism. This species of criticism by wholesale has lately been indulged in in an amusing manner by the author of the article to which I have already alluded. I hardly know whether to compare the writer's assumption to the discovery of a mare's nest or to the announcements of those quack doctors whose sole notion of argument is the indiscriminate abuse of the whole medical profession. The writer assumes that modern architecture is bad because it is the work of professional architects, who make designs but do not execute them with their own hands, or under their constant personal superintendence as master masons or builders, and he fancies that the works of the Greek and Mediæval designers were successful because there was with them no such distinction between the authors of the designs and the persons who carried them out. Under our system he thinks there can be none of that real loving devotion to architectural fitness and beauty which he discerns, and correctly, in the works of the Greeks and of the middle ages; but really this distinction between past and present customs is a quibble upon words, or, as has been well said of this article in a celebrated weekly paper, "an analysis of the strange confusion of accredited criticisms and of original sophisms pertly dished up as novelties." There is nothing but an increase in the division of labour such as has taken place in other branches of art and industry, rendered necessary to a great degree by the altered conditions of society, and by the undue haste with which everything must now-a-days be realised, no time given for study or correction. If the details of our modern work are poor and weak, which is assuredly not always the case, it is not because the designer was not also a handicraftsman, but because he is a poor artist; and if the actual mason works like a carving machine, it is not because he works under a builder who is not the author of the drawings given to him, but because he wants the genuine artistic spirit—because he is fettered by trade union rules, seeking to do the least possible amount of work for his day's pay, and that

in the most careless and heartless way. It would be as unreasonable to pretend that English painting is inferior to that of Raphael and Titian because English painters buy their colours ready made-up from the dealers, whilst the great Italian painters had them ground up in their own studios and under their own eyes. If we fail it is not, I repeat, because we are architects only and not builders, masons, or carpenters, but because our training has not been complete in the study of those fundamental ideas of proportion, harmony, and truth of construction, which underlie all the great buildings of the past—whether of Greece or Rome, of the middle ages or of the Renaissance itself; and because we are not aided by the public as our employers in the exercise of such patience on their part as would ensure greater thought and study in the works they seek at our hands. There are few present, I feel sure, who have not felt this want; it is not in private practice alone, in works freely and individually given to our care, that there is this want of consideration. In Government and public competitions it seems essential to secure the designs asked for with the least possible expenditure of time, and, as a natural consequence, with the least amount of thought and study, and without regard to the demands which our other professional engagements have upon our time. I am not clear that there is much consolation to be derived from sharing disgrace with others; but if there is, then must our suffering be much diluted, for engineers, sculptors, dilettante, and connoisseurs all come in for the general abuse so lavishly spread about by this writer. These gentlemen are, however, well able to take care of themselves, and I can only hope that the observations made for their benefit may have a more practically beneficial effect than those made upon our profession are likely to have. I, for one, have good faith in the future of our profession; even now, I believe that in the calm opinion of the educated and travelled public its status is held in fair and favourable esteem; the works of its leading members are allowed to hold their own in European estimation, and the honour and character of the general body is unquestioned. I think it rests with us to live down this squall of prejudice. I believe that the violent and personal language now so freely indulged in by the literary and professional critic does not carry conviction with it, and though exciting or amusing at the moment, is not to the taste of those whose opinion or influence is of real value; but of this there can be no doubt, that the violent personal attacks and criticisms now so often made by architects on the works of their professional brethren are generally condemned. Were such abuse thus publicly attempted in any other profession, how would it be tolerated?

At the conclusion of the President's address, a vote of thanks was moved, on the motion of Professor Kerr, seconded by Mr. Street, and carried unanimously. Both architects concurred with the President, by deprecating the present style of mutual criticism indulged in by members of the profession, the animus displayed, and the groundlessness of the attacks.

PROFESSIONAL CHARGES.—VISIT TO THE BRITISH MUSEUM.

SECOND DAY.

On Tuesday a number of architects and other visitors proceeded to the British Museum to view the newly-arrived fragments of the Temple of Diana of the Ephesians, and to hear what Mr. C. T. Newton, M.A., the Keeper of the Greek and Roman Antiquities, had to say upon the subject. Mr. Newton then entered into a detail concerning the discovery of the fragments, and the excavations carried out by Mr. Wood, who was still engaged in tracing the foundations of the Temple.

At the conclusion of Mr. Newton's lecture, a discussion took place on the part of several of the architects, Mr. Watkiss Lloyd giving some further information on the subject under consideration. Finally, it was moved by Mr. Coates, that Mr. Waterhouse, as a member of the Council of the Institute, should be requested to bring the subject before them, with a view of subsequently memorialising the Government in regard to it; a proposition which met with the approval of all present.

Some of the number of architects and visitors went over the Assyrian and Egyptian collections in the Museum, being conducted over the building by Mr. Samuel Birch,

LL.D., the keeper of the department, who briefly explained the history, nature, and properties of the several objects viewed.

The afternoon meeting of the Conference, with Mr. T. H. Wyatt in the chair, was occupied mostly in discussing the professional practice and charges of architects, and certain proposed modifications.

The President, at the opening of the meeting, read a communication from Mr. C. F. Hayward, objecting to any modification.

Mr. George Godwin supported the views of Mr. Hayward.

Professor Lewis defended the consideration of the new schedule, believing that it was necessary, and that it might be looked upon as simply a reversion of the existing schedule.

A lengthened discussion took place on the various clauses, in which the following gentlemen took part:—Mr. Edmeston, Mr. T. Mathews, Mr. Hine, Mr. Street, Mr. H. H. Stetham, Professor Kerr, Mr. C. Fowler, Mr. T'Anson, Mr. Roger Smith, Mr. Waterhouse, Mr. Aitcheson, Mr. Fogerty, and Mr. W. Burges.

VISIT TO WESTMINSTER ABBEY.—ARCHITECTURAL ART COMPETITIONS AND CRITICS.

THIRD DAY.

On Wednesday morning a number of the architects attending the Conference met by arrangement at the Chapter House, Westminster Abbey, recently restored by Mr. G. G. Scott, where an address was delivered by that gentleman. Mr. Scott concluded a very interesting lecture by pointing out the principal points in the restoration of the new Chapter House. A vote of thanks was proposed by Mr. Street, and seconded by Sir Walter Stirling. Mr. Scott subsequently conducted the party over other parts of the Abbey, explaining the beauties here and there observed and answering the queries of several of the members; and after Mr. Scott's departure, Mr. Coad and Mr. Wright (the latter the Clerk of Works) filled his place, by conducting the party over the remaining portion of the edifice. Four or five hours were altogether spent in visiting and observing various works of interest in connection with the building.

At the evening meeting of Wednesday, Sir M. Digby Wyatt in the chair, the greater portion of the meeting was occupied with the subject of competition; and, after the Chairman's address, Mr. John Honeyman, of Glasgow, read a very interesting and practical paper "On Modern Scottish Ecclesiastical Architecture." We may make room for this paper and others on some future occasion. This paper received the warm encomiums of Mr. Street and Professor Kerr, the former moving a vote of thanks to Mr. Honeyman, and the latter seconding it.

IMPROVED COTTAGES AND DRAINAGE.

We here append the report of the judges appointed to inspect Labourers' Cottages and Drainage Competition for prizes offered by the Royal Agricultural Society of Ireland. In our first article in this issue we have alluded to concrete building at some length, to which we refer the reader:—

COTTAGES.

MR. MAHONY'S, COUNTY KERRY.

The first cottages we inspected were four entered by Mr. Mahony, of Dromore, County Kerry; these cottages, which are built of concrete, according to Mr. Tall's patent, are very neat-looking and commodious, containing a very good living-room 12 by 14 ft., two bed-rooms 7 ft. 6 in. by 7 ft. each on ground floor, and a bed-room or loft over the two ground floor rooms, lighted in the case of the two centre houses by skylights, and in the case of the two end houses by windows in the gable; the living room is open to roof. These cottages are very reasonable as to price, considering the amount of accommodation given and the care and attention with which everything is finished. We could not help remarking the entire absence of damp, which

is quite excluded by the complete solidity of the walls, which allow no damp to rise from the ground; the gable walls were papered a very few weeks after they were finished, and after one of the wettest winters on record the paper showed no sign of damp, whilst in a cottage built in the ordinary way two or three years since the paper on the western gable showed evident signs of damp. Another great advantage arises from the fact of the walls being only 9 in. thick, giving an increase of at least 22 in. of internal width with the same roof. The yards and offices are most convenient, and the whole expense of each cottage and offices complete, as shown on the plan, would be under £76, or well within our maximum for much less accommodation. The great want that we felt in these houses was there being only one fireplace in each, but as the principal bedrooms are on the ground floor this may not be of so much consequence. Mr. Mahony stated for our information that rubble masonry with the necessary cut stone would have cost at least one-third more per perch than the concrete. We have much pleasure in awarding Mr. Mahony the gold medal offered for the province of Munster.

MR. COSBY'S, QUEEN'S COUNTY.

The next cottages we inspected were a pair entered for competition by Mr. Cosby, of Stradbally: they are neat and compact, well built, and well put together; the stairs leading to upper story are well planned, giving a separate entrance to each room from the landing. The great interior want is a second fireplace in case of sickness; and we think that the privy and pig-sty, both discharging into an open dung-yard within 8 ft. of the door, are too close to the house.

MR. NAPER'S, COUNTY MEATH.

As these cottages compete with Mr. Cosby's for the Leinster gold medal, we will now consider them. Mr. Naper entered two sets of cottages for competition; one near Oldcastle, on which only we need make any observations, as the other pair, situated near Carnacross, County Meath, exceed our maximum price. The Oldcastle cottages are built exactly on the plan which gained the Duke of Abercorn's prize, and for the estimate furnished, though we think it improbable that houses of this class will be built for the future for this amount, unless under very exceptional circumstances. These houses give such very superior accommodation, have two fireplaces in each, and such convenience in the way of presses, closets, &c., that we consider we must award them the Leinster gold medal as against Mr. Cosby's.

SIR H. BRUCE'S, COUNTY DERRY.

The next cottages we visited were those entered for competition by Sir Hervey Bruce. They are very neat-looking and well finished, being built of the black basalt stone of the district, with freestone quoins and dressings. They are very compact, and give a large amount of accommodation. The arrangement of the interior, particularly of the two end houses, is very good. We award to them the medal for Ulster, and likewise the Leinster Challenge Cup, as against Mr. Naper, he having only two cottages to compete, and as against Mr. Mahony, the plan being superior. Mr. Mahony's are built at a very much cheaper rate, and we have no doubt of the economy in the use of concrete for cottage walls; but having so little experience of the lasting qualities, we felt it hardly wise to award the challenge cup on account of superior economy.

In conclusion, we would beg leave to suggest for future competition the propriety of establishing an average scale of prices on which all estimates shall be calculated, and to require from parties exhibiting accurate detailed tables of quantities and of qualities of materials, so that the decision of your judges shall be based on the workmanship, convenience, and economy of materials used, and not be in any way influenced by apparent cheapness, which may arise from accidental circumstances or the use of inferior materials. One man may be able to build for 7s. a perch; another may not be able to do the same work for 10s.: in the latter case it is no fault, and in the former no merit. Such circumstances, if not explained, might cause a competitor to lose a prize for, perhaps, a better cottage. We recommend that Sir H. Bruce's cottages be lithographed, and inserted in our report for the year.

DRAINAGE.

We had, we are sorry to say, only one lot of drainage to adjudicate on—Mr. Cosby's, at Timahoe, in the Queen's County. As we have had drainage works executed on his estate under our consideration, now several years, we need only observe that it is quite equal in quality and promise of durability of work to any we saw in former years; and we were glad to see many fields which we had judged on previous occasions showing by the grasses growing on them, the nature of the sod, and their general

appearance, how well they were repaying Mr. Cosby for his outlay. We have, therefore, great pleasure in again awarding Mr. Cosby the provincial gold medal and the drainage challenge cup given by Lord Digby.—Your obedient servants,

R. C. WADE.
C. UNIACKE TOWNSHEND.
J. M. ROYSE.

ET TU BRUTE!

WE are requested to state that the decorations in the Dublin Exhibition were not only executed but designed by Mr. Edward Bell of London, and not by Mr. Walter Emden the Architect. Gramercy, what next is in store for us? Will it be believed by our London professional contemporaries, that we were actually threatened with legal proceedings by the "Clever London Architect," for having published a paragraph that threw a doubt upon the originality and scope of that gentleman's designs. Or, in other words, a person called on his behalf at our office, and gravely informed us that Mr. Walter Emden's solicitor had received instructions relative to the ugly paragraph. *En passant*, within this last year the IRISH BUILDER has had three warnings because its conductors did not choose to eat their words, and lie down with their lips in the dust. The first was from an archbishop, the second from a medical quack, and the last was at the instance of a clever London Architect. *Quombo hic et quasicum et punkitum linguam.* This is dog Latin we believe, but perhaps our architect will be able to understand it better than a quotation in Irish, which we are almost tempted to give, only we are afraid it might give the lock-jaw to any but an original genius who would attempt to spell it through.

"THE CATTERSON SMITH FUND."

AN appeal on behalf of the family of the late Mr. Catterson Smith has been issued, and we trust it will be responded to, irrespective of sect or party. Mr. Smith, though not a native of this city, made Ireland his adopted country many years ago; and though the pursuit of his profession did not bring him a fortune, it earned him honest fame and the general respect of all. Few artists in Ireland make their fortune, no matter how talented they may be, and Mr. Smith is not the exception, though his works were many and well executed. All who can spare a contribution would be doing a meritorious act to subscribe. Mr. W. D. La Touche, having kindly consented to act as treasurer, an account has been opened at the Munster Bank, where, or at any other of the banks, lodgments may be made. We shall be happy to receive any contributions sent to our office.

THE ROYAL IRISH ACADEMY.

A GENERAL meeting of the Academy was held on Monday evening, for the transaction of business.

The Rev. Professor JELLETT in the chair.

The following papers were read:—By Professor O'Reilly, "On a New Form of Goniometer." By David Moore, Ph.D., "A Resumé of the Irish Mosses, including all Recent Additions." By Robert Ball, LL.D., "A New Determination of the Elements of the Orbit of the Binary Star Ursæ Majoris." By Robert Ball, LL.D., "A supplement to his paper on the Theory of Screws." By George Sigerson, M.D., "On Heat as a Factor in Vital Action (so called)." By William Archer, Esq., "On the Genus Tetrapedia (Reinsch); and on two new kindred Chroococcaceous Forms." By William Archer, Esq., "Brief Note on a Minute Nestoe." By Rev. John O'Hanlon, "Notes of some Undescribed Antiquities in the Parishes of Kilkenny and Kiltalea, Queen's County."

The following gentlemen were elected members:—Francis Nolan, Esq., Ardee, Glengary; and Thomas Baldwin, Esq., Model Farm, Glasnevin.

A very fine specimen of the ancient Celtic shield, found lately in a bog in the vicinity of Limerick, was exhibited by Maurice Lenihan, Esq.

ARCHITECTURAL ASSOCIATION OF IRELAND.

A GENERAL meeting of this Association was held at 212 Great Brunswick-street, on Thursday evening, the 20th ult., James H. Owen, Esq., M.A., P.R.I.A.I., in the chair. The provisional secretaries reported that several gentlemen had sent in their names since the last meeting.

The following letter was read from Thomas Drew, Esq., R.H.A.:—

60 Upper Sackville-street,
June 19, 1872.

MY DEAR SIR,—I regret very much that absence from home will prevent my being present at your meeting to elect the officers of your Association to-morrow evening. I will take it as a favour if I am admitted a member of the Association, and if I am permitted to be a hearty, zealous, and practical one. It has been with the greatest satisfaction and interest I have watched the inauguration of this movement; it is an evidence that all life and energy for improvement is not extinct amongst us which I have long hoped for. Although not enabled to be an active member of the Architectural Association of London, I have been sufficiently intimate with some of the younger and active spirits of that body to have brought home to me at what an immeasurable disadvantage the "coming men" of the profession stand here as compared with their London brethren, who have extraordinary advantages now.

The present situation is without a parallel in the past. Few persons here are aware what kind of competitors the high standard of education the London School affords is preparing for us, and it will take extraordinary exertions on our part if, with all our disadvantages, we can decently hold our own, and send even an occasional Irish genius to the front.

I think the movement comes from the right direction—from the spontaneous desire of the younger men of our profession. Inaugurated by the Institute, and nursed by it, such a movement could not have one-half the healthy vitality.

The Institute has proper and very distinct functions of its own, and deserves the support of the younger members of the profession. Had it no existence, the "coming men," when they did come to the front, would find that they had embarked in a profession or calling very unsatisfactory to make a living by, and neither respectable nor respected.

I am, dear sir, yours very sincerely,

THOMAS DREW, R.H.A.

John L. Robinson, Esq.

A letter was also read from Mr. C. G. Doran, Queenstown, Cork, in which the following passage occurs:—

The Association which you are now engaged in establishing will, I hope, lead the way to many good results. Among them may safely be reckoned one that has been overlooked by the architectural profession for the three last centuries: it is the encouragement and recognition of those classes to whom the architect's designs are entrusted for execution.

In the Middle Ages, the cloister of the monk, the study of the architect, and the scaffold of the mason were frequently occupied by the same person, and the models of architectural skill remaining to-day bear testimony to the excellent working of the combination. But in latter years, when design and execution were transferred to different hands, the harmony of parts was not quite so successful. Why it was not can be easily explained. The designer neglected to encourage the craftsman, at whose hands the special features of his picture awaited development, and the craftsman, in return, "un-archined" the design, without infusing into it either feeling or spirit; the result being the absence of those happy effects which only mutual understanding could blend together.

Letters were also read from R. B. Philips, Esq., and R. S. Swan, Esq., apologising for not being present.

A ballot was then taken for the office of President. J. J. O'Callaghan, Esq., F.R.I.A.I., was elected, and the following gentlemen to form the Committee:—Messrs. N. P. Ryan, W. G. Doolin, jun., D. J. Freeman, Thomas H. Longfield, E. S. O'Callaghan, A. W. Robinson, R. S. Swan, John L. Robinson, and Wm. Butler. The Committee then selected

Messrs. Thomas H. Longfield and John L. Robinson as Honorary Secretaries, and D. J. Freeman, Esq., Treasurer; and Messrs. Mitchell and Brien, Auditors.

The session will commence early in October, when the President will deliver his inaugural address. In the meantime we would counsel the younger brethren of a respectable profession to join the ranks, that vitality and tone may be given to the voice of a body which, though young, may perform much practical and useful service. The want of cohesion, and that proper *esprit de corps* which some English and Scottish societies have lacked as well as our own native associations heretofore, has been a fruitful source of mischief. Professional practice and charges, and the relations between architects and builders in Ireland, has been for many years in anything but a healthy or satisfactory condition, and it must grow worse if a remedy is not applied, for it is not in the order of nature or society for matters to stand still. We are not visionary enough to believe in what is called the self-adjustment of things.

HOME AND FOREIGN NOTES.

NEWCOMEN BRIDGE.—A temporary wooden foot-bridge has been erected over the Canal and Midland Railway, to provide for the traffic of this northern outlet while the new bridge is building. The cost will not exceed £60. Need we ask, why was not the provision made several weeks ago?

THE INSPECTORSHIP OF IRISH MINES.—The Mines Coal Regulation Bill, though not originally intended to apply to Ireland, will come into operation in respect to this country in January, 1874. There is only one inspector of Irish mines at present, and it is deemed sufficient until the bill relative to this country comes into force. We, however, differ with the Government in respect of leaving such important interests as is involved in the mining question to the tender supervision of one man.

ART STUDIES.—With a view to preserve accurate copies of these great masterpieces of Italian art, the Cartoons of Raphael, now deposited in the South Kensington Museum, nine artists or art students, wherever educated, who may make preliminary studies, consisting of the copy full size, from a photograph of a head from the original cartoon of the Beautiful Gate of the Temple;—those who may execute satisfactorily such preliminary studies will be allowed £2 per week for eight weeks, and if from the country, second-class railway fare going and returning. The study may be executed either in oil, water-colour, or tempera, at the option of the candidate. The copies of the successful candidates to be the property of the Science and Art Department. The photograph to be copied by candidates from the Beautiful Gate of the Temple of Raphael is at the School of Art, Kildare-street, and may be viewed any day, upon application to E. Lyne, Esq., Head Master.

RATHMINES TOWNSHIP WATER SUPPLY.—From a report read at a late meeting of this Board by Mr. Evans, its secretary, we extract the following, in relation to the endeavour made by the Rathmines Commissioners to improve the water supply of the district:—"The Commissioners came to the conclusion of inviting their consulting engineer, Mr. Bateman, one of the highest authorities in the world on the subject, to advise them as to the best means of improving the supply, and after conferring with Mr. Johnston, he has directed them to double their filters and reservoir at Gallanstown, and should that prove, as he thinks it will, insufficient to supply the high levels at Rathgar, then to erect a water tower and steam engine to pump the water up. The board have entered into the necessary arrangements, and the enlargement of the works at Gallanstown will be proceeded with at once. In the meantime, they earnestly press on every ratepayer to economise the water, so as to enable as much filtration as possible to be given to it. They think it, however, due to themselves to refer to the very full statement in reference to the waterworks given in the report for 1863, concluding with the observation, 'Even with these improvements, however, some portions of the summit level of the Rathgar district will still only have an imperfect supply.' The works were planned for the Rathmines district only, then containing about 12,000 inhabitants. It is also fair to point out that the water cost the township next to nothing (*only £15 7s. 2d this year*), and when comparing this

expenditure with that which our supply from the Varty would involve (*say about £1,300 a-year*), the ratepayers may be well satisfied with their independent works, looking forward to that increased efficiency which present alterations will ensure."

LECTURES ON HEALTH.—The important subject of Health is at present being impressed on all grades of the community by two able lecturers in our city—by Dr. Cameron at the Royal College of Surgeons, who delivered his sixth lecture on Saturday; and by Dr. O'Leary at the Mechanics' Institute, who gave an inaugural lecture on Saturday evening before a numerous and attentive audience, chiefly composed of the artisan classes.

MEMORIAL WINDOW.—A handsome stained glass window to the memory of the late Rev. Henry Beardwood, C.C., has been erected in St. Michael's Church, North Anne-street. The artists were Messrs. Casey, Lower Ormond-quay. In the report read yesterday at a meeting of the subscribers, we learn—"Your committee, after giving the most careful consideration to the question, decided on giving the erection of the window to Messrs. Casey, of Ormond-quay; and the beautiful window this day unveiled confirms us that our decision was right, and proves, we hope, that Irish talents, taste, and hands are not inferior to those of any other country."

THE DUBLIN RAILWAY BILLS.—The railway bills have been disposed by the Parliamentary committee in a manner which, assuming that some one of the group must, of necessity, be accepted, ought to satisfy the public. They have declared the preamble of the Great Southern and Western Bill proved, and have rejected the others. It is a relief to hear that the huge unsightly structure which it was proposed to construct for the central station in the best part of the city is not to be allowed. We are glad of this, not merely on account of the disfigurement which it would have been to the city, and the injury to property in the vicinity, but because it would have been injurious in a sanitary point of view, impeding the free current of air which now circulates between the sea and the Phoenix Park. We believe that the bill promoted by the Great Southern and Western line will meet all the requirements of the public, the committee having obliged the company to insert clauses to enable other companies to use the accommodation. The grand project of a central station, which is a favourite idea in the minds of some persons, may not, perhaps, be even yet abandoned; but it will be brought forward under still more disadvantageous circumstances if the terms imposed on the Great Southern and Western Company be sufficiently stringent to oblige the directors to deal liberally with other companies.—*Express*.

ROYAL DUBLIN SOCIETY SCHOOL OF ART.—The following students received third or highest grade prizes, 1872:—Edith M. Arnold, Frances M. Brett, Isabella Bergin, Eleanor Kerr, Joseph Kelly, Phoebe A. Moss, Mariane Morgan, Mary A. McGee, Eliza Naylor, Kate J. O'Brien, Anna Parnell, J. D. Tobias, Elizabeth Wallace, Mary Weld, Frances Jorden, H. Thornhill, D. Bradley, S. Bucknall, D. Dundass, M. F. Murphy, Julia J. E. Wharton. The following students' works were selected for national competition:—E. M. Arnold, Frances M. Brett, Elizabeth Irwin, Marcella Irwin, Jos. Kelly, J. T. Miles, P. A. Moss, Mary A. Magee, Isabella Maffett, Marion Morgan, M. A. McGee, Eliza Maylor, Kate Nicholson, Kate J. O'Brien, Anna Parnell, R. S. Smith, J. D. Tobias, E. Wallace, R. T. Walsh, Henrietta Wise, Frances Jorden, H. Thornhill, J. D. Conan. The following received national awards:—J. C. Conan, anatomical study; J. T. Miles, design for damask; R. S. Smith, cast from antique; Henrietta Wise, group in oil.

THE PEMBROKE TOWNSHIP.—From the annual report of the Pembroke Town Commissioners, we learn that—"The raising of the Ringsend-road has been accomplished by the joint aid of the Corporation of Dublin and the Commissioners, at the moderate expense of £300 5s. 4d. to the township, which includes £100 paid the Corporation towards the building of a new wall. The road is now in thorough order and repair, and a great improvement to the locality. The sanitary department has occupied a considerable amount of the time and attention of the Commissioners in the execution of measures which have proved conducive to the health and comfort of the district. Their inspectors have been actively employed in the precautions necessarily devolving on them since the outbreak of the small-pox epidemic. The Commissioners have recently had an interview with Mr. Barrington, managing director for the Dublin Tramways Company, and they have reason to believe the company will shortly establish this cheap and comfortable mode of conveyance between the Sandymount and Donnybrook districts and the city of Dublin. The

Post Office authorities have established a district sorting office at Ball's Bridge, also a telegraph station, which affords increased convenience for the inhabitants. The Commissioners have the pleasure to close these remarks by stating that the financial position of the township is in a most satisfactory condition." Both the Rathmines and the Pembroke Township Commissioners and their officers show greater capacity for performing their public duties than the staff at the City Hall, who seem to be always at sixes and sevens with one matter or another, and who are apparently trying hard how not to do duties that they have been appointed to perform.

No appointment has as yet been made to the office of "Diocesan Architect" for the Diocese of Ossory. At the meeting of the Council on Thursday the voting was equal for Mr. Robertson and Mr. Langrishe. The matter was therefore postponed until next meeting.

The foundation-stone of a new Wesleyan church and schoolhouse has been laid at Athy. The cost, including purchase of site, will be about £2,600. The plans have been furnished by Messrs. Darley and Holdbrook, Great Brunswick-street. Mr. Wm. Faircloth is the contractor.

CONTINENTAL STRIKES.—In Germany, as well as England and Ireland, strikes are the order of the day. The masons and carpenters' strike is now being imitated by the miners. A meeting of the Association for the Protecting of Mining Interests was held a few days since with closed doors.

THE GILMOUR COLOSSAL CONCERT.—Paddy of the Boston jubilee has licked the tarnation cute Yankee, and has made him grin immoderately. At the Boston Coliseum on the 25th 70,000 persons were seated, and 20,000 additional tickets for mere standing-room were sold. The British, French, and German bands and the American Marine band performed together, President Grant being present. What a broth of a boy must not this north of Ireland chiel be! None but those who were born in a row could have kicked up such an international ruction.

A FOOD STRIKE.—The price of butchers' meat, which is unusually high everywhere, has led to a form of strike in the north of England. The women have vowed vengeance against the butchers, and are *milking* those of their own sex who patronise them.

HOW RAILWAY SCHEMES ARE CARRIED.—The *Builder* of 22nd ult. gives the second portion of its sketch of the "Early History of Railways." The following paragraph from the article may enlighten some of the advocates or oppositoinists in the rival railway schemes of this city—the Central, to wit:—"There were legislators who did even worse things than those we have mentioned. It was known that several members of the Commons took their five guineas daily from the railway secretary for supporting a bill in committee, and a case came under the writer's notice, of a peer—miserably poor indeed, and of a title now extinct—who refused a note for £50, saying he was engaged on the other side; a curious mixture of honour and roguery. It was, however, understood that there were but two members of the Upper House who were accessible to direct bribes; and the few who did so in the Commons were men of very bad general character, who paid for their lodgings with franks and parliamentary papers." There are poor devils yet serving as representatives in the House of Commons, to our knowledge, who are not above any action, from pitch-and-toss to manslaughter.

INSOLVENTS.

Henry Cleere, late of Waring-street, Belfast, county Antrim surveyor, trading as Cleere and Briggs, surveyors; previously of Waring-street aforesaid, trading as Henry Cleere, surveyor; formerly of Waring-street aforesaid, trading as Gribbon and Cleere, surveyors, having an office at the same time at Stephen's-green, Dublin, county Dublin, and a house in Belgrave-square, Rathmines, Dublin aforesaid.

Patrick Fitzsimons, late of Clontarf, county Dublin, commercial clerk; previously of Lower Pemroke-street, city of Dublin, house-painter.

TO CORRESPONDENTS.

GRANITE.—Dalkey and Ballyknocken yield excellent granite, and several of the public buildings of Dublin are faced with the former. Mr. W. Harte, of Donegal, shows some very fine specimens of polished granite for facings.

IRISH EXHIBITION.—Among those connected with the building branches who exhibit some creditable specimens are Messrs. Sibthorpe and Son, Cork-hill, in marble ornamentation and ceiling decoration; Mr. Sheppard, in marble; Messrs. Farrell and Son, Glasnevin; and Messrs. Maguire and Son, Dublin. The Victoria Slate Company, of Carrick ou-Suir, show some good specimens of Irish slates.

CENTRAL STATION SCHEME.—Some, if not all, the witnesses are highly satisfied with their success, at least on one point. Men with elastic consciences can still earn easily a five or a fifty pound note to pay their travelling or hotel expenses; and if they do not get it in meal, they are certain to get it in malt.

CIVIL ENGINEER.—Civil Engineers are not always civil, or even civilised, as some of our local lords in town and country are proving. Their capacity also is very often on a par with their civilization. The public money affords them ample opportunity to try their awkward hands and employ their stupid heads in devising engineering schemes that invariably prove the serious source of the main drainage of the local taxation.

A BRIGHT IDEA.—If the Central Railway Station is ever carried out, we hear it is the intention of our enlightened Town Council to utilise the elongated archway underneath as a place for mooring the hopper-barges. This bungs Bazalgette "entirely." There are other sanitary uses, we hear, in store for these dark regions, but it would be premature to hint at their nature.

IRISH SCULPTORS.—John Hickey, concerning whose practice very few particulars are known, was born in Dublin in 1756.

ERRATUM.—In the notice of the life of John Brookes in our last issue, for *Mr. Arden* read *Mr. Ardel*, otherwise *Mr. Ardle*.

"NORTHERN ATHENS."—We are glad to hear that everything was settled amicably, and that the strike terminated so soon.

PLANS &c. OF COTTAGES.—Will illustrate them if worthy on examination. Particulars should accompany the packet.

CRUSHED OUT.—Press of matter obliges us to hold over some notices of new works, literary and architectural, until next issue.

RECEIVED.—"A member of a Building Society." "A Carpenter"—(thanks). "J. W. B."—(no open). "DELTA" (appeared elsewhere).

J. W. ARMAGH.—"The Fine Arts and Civilization of Ancient Ireland," by Henry O'Neill, is, we understand, out of print. He may be induced to bring out at no distant period a second and cheaper edition.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filled with vestas, at one penny. Any Tobacconist, Grocer, Chemist, or Chandler will supply it.

NOTICE.

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We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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House of Commons, 2nd March, 1864.

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War Office, Pall Mall, London, S.W.,
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(Signed) **R. O. MINNIE, Surveyor.**

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VOL. XIV.—No. 302.

The Fostering of Art.

WITHIN the British Islands of late years much has been written and done in the name of Art, which has had the effect of enriching artists, and of establishing museums and schools to assist in its cultivation. All these efforts have as yet only met with a partial success. We have a school of what may be called art-criticism growing up in our midst, and its disciples, though self-called lovers of art, are practically unacquainted with the manipulation of the pencil or the brush. Some of these literary disciples have written fine essays on the sublime principles of art *per se*, and sometimes very severe critiques on works which they of course could not create, though they were adepts at criticising. On the other hand, we have mere lovers, connoisseurs, and collectors of works and objects of art, whose love is somewhat akin to the miser's, and who see in every rare picture in their collection a money value. This class of lovers of art, after a few short years, place themselves in the hands of the auctioneer, for the pleasure of realising the value of their possessions. They fail invariably to inculcate a real love of art to their children, because they have never possessed a true spark of the divine fervour themselves. These men are fosterers, in a certain sense, of art, and they perform unconscious service to the cause of art in an indirect way. The real lovers and practical encouragers of art are rather sparse, and it will require some few years more of true art-education, to apply and embody the thoroughly practical and useful in the fields of industrial pursuits where it will be really productive of vast benefits to all.

Our Royal Academy artists have been for many years working almost in the one groove, though their subjects are diversified. They sketch, and paint, and study hard, often with a view to create effect and surprise. Some outherod nature in their creations, and others give us pictures of dreamy and ideal loveliness, which merely appeal to our senses or passions; but the whole result of their labour does not advance the practical and utilitarian art one pin's point in the direction that we would like to see it advance. That portion of art-work which caters alone for the walls of an exhibition building or a lordly or regal drawing-room, may meet with an appreciative class of society to reward its display, but outside this confined sphere of action we need a diversion in the interest of the workman and the industrial arts.

Parliamentary legislation or bazaar collections will not create by itself a new race of artists; and grants of money to establish large collections of objects, without any definite aim, save to show to the curious how wayward are the tastes, and how fanciful are the works and the workers in other nations, will not create an original school of art. These collections, no doubt, will have their uses; and if they afford our artists and workmen the knowledge to avoid imitating them, or using them exactly as models, the

bringing of them together will be most useful in one sense. It has often been in the pursuit of art as well as in other matters, that congeniality of thought will produce similarity of expression; but the works of other men, and particularly those of foreign nations, should not be used as examples to slavishly copy, though they may afford a valuable insight as to their modes of production, and how their effects are produced.

What we require is a permanently-established national school of British art, standing out distinct from Greek, Roman, French, or Flemish schools in the past. For a period in the history of English architecture, in as far as art was used for ecclesiastical purposes, we had good specimens of a purely Saxon, English, and Celtic type indigenous to the British Islands; but intercourse with foreign nations, and a vitiated love of the new and fashionable, led to the debasement of what was really good and noble.

The school of British painting is a modern school, and only very few native artists have laboured to develop it. Many of our artists had not sufficient leisure, nor could they afford to work for fame alone; they had to work for bread, and they felt it was rather a hazardous task to strike out a path in the arts racy of the soil. They imitated, and sometimes their imitations exceeded the originals in spirit; but the colour and scent of foreign lands hung around their most glowing and successful efforts. Even in our church architecture and decoration at the present hour, not content with seeking inspiration at home, our artists and architects are wildly searching abroad for precedents for practice and imitation. Surely we ought to expect a better outcome from the last quarter of a century of art-culture and criticism in these countries. Antique models are not, because they cannot be, despised; but neither our architects nor painters need at the present day to go on a pilgrimage to St. Peter's to seek for inspiration to decorate St. Paul's. Both buildings are grand examples of architectural skill, but an ornamentation can be designed suitable to the latter without imitating the former, though there is much that is worthy of studying in St. Peter's.

In everything around us we need an advancement. Our public buildings, our public parks and gardens, and our domestic dwellings, are expressionless. Our homes but seldom remind us that they were really designed for human habitations, and for men possessed of souls and bodies. They are not homely, but the majority are quite the opposite; neither are they artistic: they are barbarously uncouth—an outward lie and an inward nuisance.

To encourage and develop art properly, and make it felt in every walk of life, it must grow with our children's growth, strengthen with their strength, and then it is sure to blossom in their manhood. The very toys they use should exhibit some of the principles of art, and objects that they are obliged and cannot help beholding, ought to be made to impress upon their plastic minds a lesson that could easily be elaborated as they increase in age. The work of reform must also begin in the school and the workshop, and Nature itself supplies a boundless field for study in form and colour.

In the pursuit of the industrial arts, embracing various manufactures, this art-question needs extensive application, as we are at present producing, or rather reproducing, for series of long years stereotyped

forms repulsive almost from their very sameness, and tending to prove by their existence and usage among our people that we are as barren in the inventive faculty as we are in the artistic.

BUILDERS, WORKMEN, AND OTHERS.

A GENERAL strike for an increase of wages and a decrease in the working hours is taking place in the three kingdoms, not only in the building trades, but in almost every branch of skilled and ordinary manual labour. What its ultimate effect may be, it is almost impossible to say. There is no doubt, however, that there will be an increase in the cost of living that may go far to counteract the advantages supposed to be obtained by the workmen.

One of the most important series of strikes and locks-out that has occurred during the last quarter of a century in connection with the building trades, has been taking place in London; and, though the grievances as affecting one or two trades are being adjusted, the majority of the other trades are still on strike, and are inclined to hold out until their demands are granted. Never before, in the history of the building trade, has a demand for an increase of wages and a shortening of the time worked, met with such unanimous support in England as the present; and it must be admitted that the strike and lock-out in London, on the part of both the workmen and the employers, has been creditably conducted on both sides. Very little tyranny, indeed, has been evidenced on the part of the men, and a conciliatory spirit is shown up to the present by the employers.

We have given the subject of strikes and locks-out some thought, and we are unable to see how they can be wisely rendered avoidable, save by arbitration. There must be discussion, some concession on both sides, which means compromise, and arbitration alone can adjust the differences and restore confidence. We have always acknowledged in the abstract the right of workmen to seek for, and if possible to obtain, better remuneration for their labour; and a similar right must be accorded to the employers to resist demands, if they believe, under the circumstances, that they will be fatal to their interests. If it were possible—and we believe that it is—that workmen could be allowed to share a portion of the profits arising from all kinds of contracts, as well as their ordinary wages, a better state of feeling would exist, though it would not put an end to strikes. The co-operative system affords a solution to some of the difficulties appertaining to several forms of labour, though not to all. Co-operative building societies could be established, in which the members composing them would have a direct interest in supporting, and contracts to any extent could be carried through by the medium of such bodies. What is possible to cabinet-makers, coach-makers, piano manufacturers, organ builders, painters, and ironfounders and workers, is also possible to building workmen and other operative bodies.

France was ripe enough for the experiment a quarter of a century ago. England has been partly trying the experiment, and with some success, in her great manufacturing centres these few years past; and Ireland can try the experiment if it pleases her operatives. There are thousands of workmen in this country, we are aware, who would

rather work for employers than be troubled with the effort and energy requisite to create employment for themselves, or be considered their own masters. We all live by one another, no matter how we exercise our talents; the multitude of traders and shopkeepers in a manner work for themselves, either singly or in twos or threes. They live out of the public, they cater for the public, and they are endlessly soliciting the patronage of the public. Cannot workmen do the same? We are aware that there are some difficulties in the way, and it may be said, where will the capital be got to begin the experiment with? To which query we reply, create it. Workmen in work can associate together in number, and by small subscriptions create a fund. Small contracts can be always secured, and the profits of the first, if wisely conducted, will enable a larger one to be undertaken. There are many gentlemen, estate agents, landed proprietors, merchants and shopkeepers who will be found as ready to give a contract to a number of associated workmen as to others.

The Co-operative building principle, if workmen earnestly desire to help themselves, and at the same time are willing to bear with the anxieties common to the ordinary contractor, can be tried, and success is possible, if earnest efforts are made. Our race of builders may not all be as liberal as they ought, but they cannot be blamed for studying their own interests. Competition at present in every firm of labour is very great; but the greatest capitalist does not always cut the minor ones out of the labour market, or prevent them from making a fortune. Workmen associating to a certain extent, would create work for themselves, and share in the profits, and the more energy they infused into their business, the more independent they would undoubtedly be.

In conclusion, we may add that the time will arrive when the impolicy of strikes and locks-out will become apparent to the employers and the employed. Indeed, at present, many are conscious of the fact. At the present time, builders as well as operatives should have their societies to guard their interests, not for the purpose of waging a warfare represented by the words Capital and Labour, but to reform the many abuses that exist, and for the purpose of leading to a re-modelling of the laws of Contracts. Architects, builders, workmen, and the general public, need to be better served.

DR. O'LEARY'S LECTURES ON PUBLIC HEALTH.

WE are glad to find that the popular lectures on sanitary science now in course of delivery on Monday evenings by Dr. W. H. O'Leary, in the Theatre of the Mechanics' Institute, are being appreciated and listened to by large numbers of our artizan classes. The lectures already given were characterised by a simplicity of language not likely to be misunderstood by the most ignorant amongst the auditors. At the present day every opportunity should be embraced of teaching "the people the knowledge of, and the absolute necessity of attending to, certain fixed sanitary and scientific laws, which are the means of preventing disease, preserving health, and prolonging life amongst the toiling masses."

On this evening the lecturer will continue the subject of "The Atmosphere," remarking *en passant* on—The Dwellings of the Working Classes—effects of their present condition on health. Exhalations from the Human Lungs and Skin—diseases engen-

dered by them. Fever, Consumption, Small-pox, and Epidemics in general preventible. The Germ Theory of the Propagation of Disease—the Chemical Theory. How life is shortened—how it may be prolonged.

THE PATENT LAWS.

THE Parliamentary Select Committee on the Patent Laws, to which we (*British Trade Journal*) have so frequently called attention, have at length completed their labours and presented their report. That document consists of a summary of fifteen resolutions arrived at by the committee respecting the industrial effects and the customary administration of these laws, and of some ten suggestions bearing on the reform of the whole system. It is satisfactory to see that the committee vindicate the principle of patent rights which tend to the introduction and publication of numerous improvements, each "of a minor character," the sum of which contributes greatly to the progress of industry. In their opinion "it does not appear that the granting of pecuniary rewards could be substituted with advantage to the public interest for the temporary privilege conferred by letters patent." There can be no reasonable doubt about the soundness of that conclusion. The market is the true test of the value of an invention, and an invention is all the more certain of being matured to the utmost by being left for a period the exclusive property of the inventor. Regarding the redress of present grievances, we are sorry to see that the suggestions of the committee do not favour greater facility in getting patents by deserving parties, while it seeks to render the law more stringent in determining their claims. At present a patent for fourteen years cannot be procured for less than £170, to say nothing of the charges for agency. Now, the vast majority of inventors are poor, and the first step often proves an effective barrier against them. As a consequence, the multitude of patents seldom pass their first age, and only a few reach their second, or are valid for three years. With the law satisfied on the score of the worth of an invention, it is cruel, unjust, and impolitic to strangle it by an exorbitant money claim. No more should be charged for patents than in the aggregate will suffice to meet the expenses of the Patent Office; anything beyond that is mere robbery. As a manufacturing people, inventions have made us and inventions must keep us. Consequently, we have no secular interest of greater importance than the inventive genius of our countrymen. It is a grievous defect in the report, that it takes no notice of the crying evil of expense with a view of taking the requisite steps for its reduction.

THE CIVIL SERVICE AND CO-OPERATIVE SOCIETIES.

In the House of Commons on Thursday, Sir T. Chambers asked the Chancellor of the Exchequer whether the system of trading as carried on by the servants of the Crown, under the designation of civil service co-operative associations, was not opposed to the rules of the Service; whether heads of departments were not, in some instances, salaried officers of the Co-operative Association; whether servants of the Crown were not prohibited from engaging in trade or mercantile pursuits; and whether the Government were willing that an inquiry should be instituted into the whole question of civil servants of the Crown and their connection with co-operative trading societies. The Chancellor of the Exchequer replied that if the civil servants of the Crown combined for the purpose of obtaining goods for their own use at a cheaper rate it was not for him to interfere. He saw no objection to such a proceeding, nor did he wish to intervene, even if he had the power. The only answer he could make to the other part of the question was the Treasury minute, dated March, 1849, from which it would appear that officers in the Civil Service were strictly prohibited from engaging

in any business or pursuits which would occupy the time that ought to be devoted to the business of the public. There it stopped short. The next part of the enquiry he could not reply to, because he had no means of obtaining the information. So long as the Crown duties of civil servants were completely discharged, no notice would be taken of their connexion with any other. Lastly, he had to say that as the Government had limited themselves hitherto to seeing that the civil servants should attend to the work specially allotted to them, he was not willing to enter upon any general enquiry, which was unnecessary, as any suggestions of practical value might be received without it.

JOTTINGS.

STREET IMPROVEMENTS.—We perceive that a new building has just been completed on Wellington-quay, corner of Eustace-street, for Mr. Marcus T. Moses, wholesale tea merchant, of Cope-street. Though simple in architecture, it will be one of the finest tea offices in Dublin, as the entire premises have been laid out for this one branch of trade, and the great extent of frontage to the buying and sale rooms makes it peculiarly lightsome. The work has been carried out by Mr. Stapleton, contractor, under Mr. Antisell, architect.

By a notice in our advertising columns it will be seen that an appointment to the office of architect to the Diocese of Glendalough, will take place on Wednesday next.

In a limited competition for the erection of the new distillery at Clonliffe, Messrs. Wardropp and Son, of Great Brunswick-street, have been declared the contractors, at £29,268 7s.

Mr. Christopher Galwey has been appointed assistant county surveyor, County Kilkenny, in place of Mr. Rafter.

At the meeting of the Grand Jury of the County Kilkenny on Thursday, the county surveyor, P. Burtchall, Esq., was asked if anything had been done since last assizes about St. John's Bridge, in the city. Mr. Burtchall said, the former presentment had fallen through, a suitable tender for a metal bridge not having been got. A committee had been appointed at last assizes to inquire whether a stone bridge might be built, or if the approaches of the present bridge could be improved. Nothing, however, had since been done. The subject was deferred for further consideration.

BOOKS RECEIVED.

Tweed's Guide to Glasgow and the Clyde. Glasgow: John Tweed, 11 St. Enoch-square.

POSSESSING a knowledge of Glasgow and its environs, as well as its watering-places and nooks of interest along the banks of the Clyde, we are glad to see an accurate guide for the city and its river published. From the Broomielaw to Bute, from "Paddy's Market" to "Paddy's Milestone" in the Frith, the Clyde and its surroundings, from source to sea, is well described. This new guide is creditable to the publisher and the people of Glasgow. It contains several illustrations on steel and wood, well executed, and a well-developed map of Glasgow and the West End Park. We can safely recommend our Belfast and Dublin readers, many of whom visit the Western Highlands and glens of Argyle yearly, to procure Mr. Tweed's book. The public buildings, ancient and modern, of Glasgow, are delineated; and a-down the river, and inland a distance, the old castles, churches, ruins, locks, are enumerated, and their origin, history, and uses given to the reader. To be brief, there could not be a much better or more useful guide issued respecting the Clyde.

We may remark here that Mr. Tweed has already published several works relating to the history, manners, customs, public cha-

acters, and even the follies of Glasgow in days gone by, and, as a publisher, and a self-made man, he will be remembered in connection with his profession.

The following have also been received:—"Practical Plane Geometry, giving the simplest modes of constructing Figures contained in one plate, and Geometrical Construction on the Ground." By J. F. Heather, M.A. Lockwood & Co., London. "The Fortieth Report from the Board of Public Works, Ireland."

THE ROYAL HISTORICAL AND ARCHÆOLOGICAL ASSOCIATION OF IRELAND.

THE quarterly meeting of this Association took place on Wednesday last at Butler House, Kilkenny,

MAURICE FITZGIBBON, Esq., in the chair.

The Rev. James Graves (hon. sec.) stated that the inhabitants of Londonderry had memorialized the Premier on the subject of proper steps being taken for the preservation of those national monuments which, since the passing of the Irish Church Act, had come under the care of the Church Commissioners. Mr. Thomas Watson, of Derry, had forwarded him Mr. Gladstone's reply to Sir F. Heygate, which stated "that the memorial from Londonderry, forwarded by you on the 12th inst. (June), has been referred to the Church Commissioners, and their attention has been called to the subject raised in it."

PRESENTATIONS TO THE MUSEUM.

Mr. T. Stanley, Tullamore, presented several objects of interest to the Museum, amongst them was a stone inkstand, inscribed with the initials I. R., and the date, 1677; a large lump of ancient bronze, curiously punched or bored in various places; a flint scraper, a number of ancient coins, and a piece of bog-butter, all found in various places in his own locality; also a photograph of the old castle of Shragh, King's County.

Mr. W. Lawless, Rose-Inn-street, Kilkenny, presented a silver sixpence of King George II., and a silver twopence of William and Mary.

Dr. J. A. Purefoy Colles, Surgeon 4th Light Infantry, Kohat, presented a *chura* or large knife, the national weapon of the Afghans. This specimens came from Teera, a valley to the south west of Peshawur, inhabited by the Afreedis, one of the most powerful tribes on the frontier. His object in sending it to the association was, that it might perhaps help to illustrate the use of the skean, or ancient weapon of the Irish.

Mr. William Gray, Mountcharles, Belfast, presented a counterfeit antique bronze sword, reporting that a regular manufacture of archaeological forgeries of the kind was being carried on in that district, so that collectors should be on their guard.

The Rev. P. Neary, C.C., Ballyousskill, presented, through Mr. J. Hogan, Ormonde House, a remarkably fine fictile vessel, from 5 in. in height, and 9½ in. in diameter.

Mr. Prim said, the Rev. James Gaffney, J.C., Dublin, had entrusted to him for presentation to the Association's museum, a very curious and interesting seal connected with the Corporation of the town of Gowran, in the seventeenth century. The seal which that body had used from the latter end of the seventeenth century till it was dissolved by the Municipal Reform Act, was still extant in Gowran Castle, and was figured in the *Transactions of the Kilkenny and South East of Ireland Archæological Society*, for 1856, vol. i., new series, page 93, it being there given as an illustration of a paper by the Rev. James Graves on "The Ancient Borough Towns of the County of Kilkenny." But it was of course not the original seal of the Corporation of Gowran (which, under its olden title of Ballygauran, had received its

charter of incorporation as early as the reign of King John), as it bore the date 1695 beneath the device of a castle. Mr. Graves had made every possible effort to ascertain what was the device and inscription on the olden seal, but was unsuccessful, although impressions of it had been anciently attached to several documents in the evidence chamber of Kilkenny Castle, but they had, in the lapse of time, fallen from the parchments and been lost. The seal now in Gowran Castle was that engraved for and used by the body which was constituted the corporation by King William III., when the members of the corporation constituted under the charter of James II. were ejected from office. The seal now presented by the Rev. Mr. Gaffney was clearly not the original seal of Gowran either, but there could be little doubt, although it bore no date, that it was the seal used by King John's corporation. The device was very unusual in the seal of a corporation not ecclesiastical, being, in the centre of an oval field, the sacred monogram, "I.H.S.," surmounted by a cross, and beneath the three nails of the crucifixion, in the conventional grouping of the "emblems of the Passion." The material of the seal was copper, and the legend was—

+ SIGILL. CORPORACIO. BALE. GAURAN.

The Rev. J. Graves exhibited a photograph of a bronze shield, sent to him for the purpose by Maurice Lenihan, Esq., J.P., Limerick, into whose possession it had come shortly after its having been found near that city. The photograph had been accompanied by the following communication from Mr. Lenihan:—

"I write to tell you that I have in my possession a unique relic of eminent Irish armour. Walker, Grose, and others state that metal shields, with one exception only, have never been found in Ireland. The shield which I possess has been recently found in one of our bogs, and is a fine and beautiful specimen. It is perfectly round; about two and a-half feet in diameter; it contains six concentric circles and bosses, and a rim fully two inches in breadth. The outside circle, or that farthest from the umbo, and which for convenience, sake we shall call the sixth circle, contains seventy-five bosses; the fifth circle sixty-five bosses; the fourth fifty-four bosses; the third forty-four bosses; the second thirty-five bosses; the first, or that which is next to the umbo, twenty-three bosses. The umbo is about five inches in diameter. The handle which is fixed by rivets across the concave of the umbo (inside) is six inches long, and about one and a-half inches thick or broad; it is rounded at the edges and is hollow. Two bronze loops for the slinging string, are riveted to the third circle of bosses, and the head of each rivet forms a boss similar to the other bosses. The material is called golden bronze. When the shield was found, the finder nibbed and scraped it, taking off a large quantity of the *verde antique*; but there has been enough left to delight the eye of the antiquary. I have thought it well to make you thus early acquainted with the existence of this curious relic of ancient Irish armour, for your information and that of the members of our society."

Mr. Graves expressed great interest in this object, which he stated Mr. Lenihan had since sent for exhibition to the Museum of the Royal Irish Academy, where he believed it was likely to remain.

ANCIENT INSCRIBED STONES.

Mr. W. F. Wakeman, Enniskillen, presented to the society, the stone with Ogham inscription, found in a cranoge in Lough Eyles, as described by that gentleman in his recent paper, communicated to the association, on the "Ancient Lake-dwellings of the County Tyrone."

Dr. Caulfield, Cork, presented a rubbing taken by him from an inscribed stone of an irregular form, about 14 in. by 15 in., evidently a fragment of a larger, found in a field near Druncara Castle, eight miles west

of Macroom, Co. Cork, on April 1st. The scribing evidently presented characters of some kind, but scarcely likely to be deciphered.

Amongst other presentations were drawings of gold antiques of the torque class, recently found in the north, from Mr. Watson, Londonderry, and Mr. Gray, Belfast; and Mrs. Innes, Kilkenny, made several presentations to the non-archæological section of the Museum, comprising specimens of diamonds and other precious stones; collections of postage stamps of different nations; a specimen of the second trans-Atlantic telegraph cable, Indian kuskus, &c.

The Rev. Mr. Purcell, P.P., Ballycallan, through Mr. John Hogan, exhibited a very elegant silver monstrance, used for many years in the chapel at Ballycallan, and presumed to have been originally presented to that parish by Colonel Richard Butler, of Kilkash, brother to the first Duke of Ormonde, and the ancestors of the present Marquis of Ormonde. That Colonel Butler was the donor of the monstrance to some parish, there could be no doubt, from the inscription which it bears:—

"God. be. merciful. to. the. Honnerable. Collonell. Richard. Butler. and. his. Right. Honnerable. Lady. Frances. Butler, alias. Touchet."

The Mr. Graves said that, in its general design this monstrance bore a great resemblance to one believed to have been made for Bishop Roth, and which had been long preserved in the Bryan family, and presented by the late Mrs. Bryan, Jenkinstown, to the Roman Catholic cathedral, Kilkenny. But this one of Ballycallan, beside the important feature of the inscription, was also somewhat older, and much more highly decorated than that of Bishop Roth.

The Rev. R. Deverell exhibited a map of Dublin in 1793, showing "corn fields" existing in many of those parts of the Irish metropolis now most densely populated and covered by buildings.

Mr. J. G. Robertson exhibited a bronze fibula of a very rare type, which he had very recently picked up; and he showed, figured in the publications of the Copenhagen Archæological Society, a Danish fibula exactly of the same character. Mr. Robertson also presented a portion of one of the ancient gable crosses of St. John's Abbey, which he had preserved from being transferred to a limekiln.

Dr. Barry Delany exhibited a copy of the "Hibernia Resurgens"—the work in which Bishop Roth (although published under the pseudonym of Donatus Roirke) exposed the attempt of Dempster to appropriate the Irish saints to Scotland. All the works of Bishop Roth are scarce, and this is one of the rarest. There were several marginal manuscript notes, in a contemporary hand, and it was improbable that they were in the writing of Roth himself.

Amongst the papers brought before the meeting were the following:—

"On a Dolman or 'Giant's Grave' at the 'Barr' of Fintona, Co. Tyrone," by Mr. W. F. Wakeman.

"Megalithic Structures and other ancient Records in the manor of Loughrey, County Tyrone," by Mr. G. H. Kinahan, M.R.I.A., &c.

"A notice of a Monumental Slab found at Ballysaggart, parish of Killaghtee, barony of Banagh, Co. Donegal," by Mr. W. H. Paterson.

The following were promoted to fellowships:—The Right Hon. the Earl of Desart, and O'Connell Hackett, Esq., Mayor of Clonmel; John Evans, Esq., Stuart Knill, Esq., Robert Romney Kane, Esq., A.M.

The following were elected as members:—Dr. Whitley Stokes; Rev. Dr. Farrelly; J. W. Agnew, Esq., M.D.; J. H. Cornella, Esq.; Townsend Trench, Esq.; E. S. R. Smyth, Esq., D.L.; William O'Keeffe, Esq.; John McCarthy, Esq.; Rev. Wm. Ball Wright; P. J. Dillon, Esq.

A vote of thanks having been passed to donors and exhibitors, the chairman declared the meeting adjourned to the first Wednesday in October.

THE ANCIENT TRADE GUILDS AND MODERN MINOR CORPORATIONS.

THE subject of the ancient trade guilds, or City Companies, as they are termed in London, is beginning to receive attention in connection with their trusts and their available resources, which can, and ought to be, utilised for the purpose of technical education, art, and handicraft. Leaving the inquiry in respect to the ancient trade guilds of Dublin in abeyance for the present, which will need a thorough ventilation, we may begin by stating that in London at the present hour there are nearly one hundred minor corporations, which date from the communes and boroughs within the walled towns of the Middle Ages. The majority, if not all, of these early guilds of trade and skilled handicraft were established for the protection and encouragement of the distinct trades whose names they still bear, but by modern political changes and mismanagement these guilds have nearly altogether been diverted from upholding their original objects. Some centuries had to elapse before any but the most primitive forms of machinery were utilised in the service of British craftsmen. Every one of these guilds of trade was possessed of some exclusive privilege or another. English monarchs granted charters, reign after reign, renewing or confirming previous charters. Guilds of trade, from their very nature, introduced the democratic element into English society centuries ago; and, if we look deeply below the surface, there will be the less wonder experienced to-day, when we stare at the results. Handicraft would have never prospered under the feudal system, nor mechanical industry have maintained but an uncertain existence, had not those early guilds of British merchants and workmen banded themselves together. The guilds have grown powerful in time; their members made common cause with the citizens, being citizens themselves; and thus, between the early guilds and the nobility, a continued antagonism existed, similar in spirit to that displayed by modern trades unions against the aristocracy of rule and capital. Gradually these early guilds merged into local councils or minor corporations, and eventually into *bonâ fide* municipal institutions. For some centuries the original purposes of the guilds of trade and handicraft were adhered to, but as they increased in power, the political element began to predominate, and the mechanical to subside, except in name.

The exclusive privileges appertaining to these guilds protected and encouraged mechanical industries, and had the effect of maintaining a high standard of executive skill. Apprenticeship was necessary and unavoidable, and no craftsman was permitted to work unless he could show his credentials. The freedom of his guild had to be won by an articulated servitude, before he could practise as a journeyman. Members at their death left large sums for schools, asylums, hospitals, churches, and other institutions in connection with their respective guilds. Some of these grants or bequests were also left to be devoted to the apprenticing of a certain number of orphans, the children of deceased members, or to outsiders in default, for the purpose of learning the "art and mystery" of a certain specified trade, generally that of the deceased member.

The leaving of these bequests was a general practice for several centuries, and in consequence the city guilds and companies of London, the representatives in name of the ancient handicraft guilds, are the possessors, or rather the masters, of several millions worth of property.

As far back as the sixteenth century, the city guilds of London began to lose their distinctive character, and became more and more political bodies, or "feeders" to the central municipal authority. Numbers of persons of every class became members of these guilds, and though they were called by distinctive mechanical names, they were of course ignorant of any branch of handicraft in the majority of instances.

The present position of the city companies or guilds is of course anomalous, from the fact that they hold possession of enormous funds accruing from trusts originally left for trade and skilled labour purposes, and which are no longer devoted towards those ends except in a very infinitesimal degree.

It was necessary to our subject to have thus traced briefly the original constitution of the trade guilds of London, in view of the evolutions now taking place for the benefit of the British mechanic. It is now proposed to establish technical colleges and universities, for the training and future education of the craftsman, but a difficulty besets many of the promoters, how to accomplish their desires upon a grand scale. The Government, while not opposed to the extension of knowledge, or of throwing any serious obstacles in the way, to the educational progress of the operative classes, have reason, 'tis said, to look with alarm on the steady advance made by the workmen themselves in directions otherwise than educational. The workmen themselves believe no longer, with the poet, that those who think must govern those who toil, and they have given cogent reasons to their own mind, why they must think for themselves. Plainly at the present hour, skilled labour in Great Britain has constituted itself a new united power, and bids fair to dictate terms, instead of being compelled to accept them. Machinery and steam once strangled hosts of mechanics, but the power that slayed them in thousands is no longer feared by them, for the trained hand and the educated mind are as indispensable to-day, and more so, than they were the first hour that steam-driven machinery startled the mechanic from his dream. Hand-power and handicraft reign still, and will always be a power, and often a power for evil in these kingdoms, until mechanical employments have ceased to be looked upon as an undignified calling by those who ought to know better. The general spread of education has enabled the British craftsman to partially educate himself in those parts connected with his craft requiring scientific knowledge, and the next generation of workmen will in consequence wield a far greater power for good or evil, than the present, according to the passions by which they may be moved or influenced. Let us again look back. Less than forty years ago it would be impossible for the deepest thinker, on our social problems, to foretell the changes that have since taken place in the condition of the skilled workman—changes which it is no stretch of language to say, involve some of the deepest questions and the most serious ones of this age. The causes that have led to this condition of things are various in their nature, but they may be reduced to a few. The general introduction of machinery, the development of the railway system, the formation of mechanics' institutes and schools of art, the growth of cheap literature, periodicals and newspapers, and finally the establishment of class journals. These are among the primary causes that have led to the growth of that new motive power, by which skilled labour has agitated and held the country in a continued heaving. It would be mischievous if we were to pretend to no discernment of phases, in the condition of English society, caused by the operative elements. Between trade unionism forty years ago and to-day there is a gulf, though much of the former spirit still exists. The applications of machinery to manufacturing purposes for many years produced a state of transition by which thousands were for awhile partially or wholly disabled, or sent adrift to seek or learn a new calling as best they might. This period of suspense has for some years passed by, and the occasional introductions of new inventions in mechanical appliances now, very little disturbs the army of skilled labour. A new race of workmen has replaced the old, with new thoughts, new channels, enlarged minds and more skilful hands. British workmen, as a class, are better educated, and they have thinkers as well as workmen among their order, who, though their thoughts are

not always directed to the wisest ends, are generally directed in the interest of their class. In view of this position of affairs, it may be asked, is the Government of the country justified in affording fuller facilities towards the future education of mechanics, and of legislating for their interests? Must patronage and protection be further afforded or withheld? or must the guild of handicrafts be let rely upon its own collective resources, to shape its future policy, and work out, according to its own views, that enfranchisement which it thinks necessary for its well-being?

What has been termed a few years since "the natural adjustment of things," as applied to the settlement of the conditions of Capital and Labour, is an adjustment which may mean anything or nothing—it is either a progression towards good or evil, without any practical guiding principle. Education, therefore, of the most useful description, becomes the sole and only safeguard for the future of this empire, and the more practical and technical it is made, the more important and healthy will be the results. What are commonly called the professions, the medical, the legal, the ecclesiastical, the architectural, the engineering, the military, or the naval, are overcrowded at the present hour. The ambition of fathers and mothers, who occupy what are called respectable positions in society, leads them to give an university education to their sons, with a view to following the above callings, and they look down with a feeling somewhat akin to contempt on mechanical employments. We would certainly advise them to reconsider, in many instances, their foregone conclusion, if they would wish to prevent much future suffering and anxiety, hard struggles and blasted hopes on the part of those whose interests they hold dear. The tendency, aim, and scope of technical education, will have for its results, in a few more years, the placing of an unlimited number of mechanics' sons in the professional and labour market, better fitted for the battle of life, and possessed of a more practical education, than their rivals in the classes of life above them. The architectural and the engineering professions are likely to undergo new conditions from a siege on the part of the operative building element, and other professions will also have hosts of new competitors. A reaction will, and must, set in, in favour of adopting mechanical callings for the wants of the many, not from choice, but through a wise discretion and necessity. It is the greatest folly for people to entertain the notion, that there is anything vulgar in the practice of a trade, be the mechanical calling whatever it may. The practical acquisition of a trade cannot be overrated; learned once, it is seldom or ever forgotten, and the clever craftsman, with prudence, may lay the foundation of certain independence—the more ability he possesses as a workman, the greater are his chances as a successful employer of labour. In no walks of life are greater fortunes made than in the prosecution of works calling for a vast organisation and distribution of skilled labour. Let the sons of the moderately rich, therefore, turn their attention in future more to trade purposes, and the acquirement of practical and technical knowledge, as a preliminary to their future successful prosecution of trade and manufacturing pursuits. We would advise them, in every instance, to enter the workshop, and become the workman in fact as well as in theory. The architect, the engineer, the mining or iron master, who is ashamed to soil his hands, dirty his boots, or smut his face in the pursuit of his profession, ought to be ashamed to practise it, or pocket his fees or commission. Superintendence includes not only mental, but mechanical labour, and no gentleman ought to be ashamed to perform the latter when requisite.

When mechanical employments are more generally resorted to by others than the very humble, this country will undergo a great change for the better. Prejudices will dwindle, class animosities will be dwarfed,

and mortal hatred will no longer stand between the aristocracy and the masses. The aristocracy of wealth, literature, and labour, will have common interests, and their uniting will be for the national good.

Skilled labour, at the present moment in Great Britain, is developing its latent powers, and the whole of the mechanical element of the empire is coalescing for common ends and purposes. A great confederation of labour, skilled and unskilled, is imminent, and we are not unlikely soon to witness such a sight. Undirected by wise leaders, the movement may become an unmixt evil; and used at the same time for political purposes, the danger becomes greater. Labour movements that become semi-political organizations, generally defeat their own ends, because they are naturally deprived of a certain amount of sympathy and support that they would have received from other classes than themselves. Failure, however, has never yet been found to permanently disable the efforts of labour movements—the warfare is chronic; and we find that skilled labour during the last quarter of a century has been gradually conquering in detail.

The present generation of skilled mechanics will dispose of their labour just as it suits their own views as to its value, independent of the principles of political economy. They are guided by their class organs and their leaders, and the general newspaper Press is not listened to when it speaks counter to their views. Much good, however, can be achieved by the Government of the country, in moulding our future race of craftsmen, and the beginning of this good will date in a measure from the permanent establishment of the school boards. There are greater undeveloped resources at command still for carrying out the needed reform, and the existence of these we have touched upon in the opening of this article. Without taxing the country to raise one additional penny, almost unlimited capital lies in the hands of the city companies (the original handicraft guilds of London), which can wisely be devoted to the direct encouragement of art and trade, and the technical education of our future race of British artificers. To make those guilds of ancient trade available for modern pressing wants, a Parliamentary Commission is first necessary, and then a short bill defining the new conditions. Each guild would be allotted to the trade whose name it bears, a new directorate would be established, and the functions appertaining to a *bonâ fide* guild of trade would be commenced *de novo*. The ancient charity, educational, and asylum trusts connected with the older life of the guilds, of course, should be respected, and the intentions of the donors carried out as far as possible, with the modern circumstances of society. There are sufficient funds available in connection with these city companies to accomplish almost anything. Technical schools, schools of art, model workshops, model farms, laboratories, lecture rooms, reading rooms, and annual exhibitions of skilled labour and art objects in connection with each trade would be the natural growth and result of such a reform. A far wider range than these matters would be embraced, and in one quarter of a century England would witness a changed condition of society, a more practical race of workmen, and the mechanical element would be learned by new blood from other classes.

Here in Dublin our ancient guilds of trade exist but in name, and are not represented in the tangible form presented by the city guilds of London. Many ancient charitable bequests and trusts have been diverted, and it would be advisable that a Government inquiry or commission should be ordered to examine into the whole subject and report thereon. A painstaking inquiry respecting the modern enactments affecting the Corporation of Dublin and its property, and also an examination into the Church livings in this city, and the charitable trusts now and formerly attaching to them will disclose much information. Many ancient bequests

in this city, bequeathed by worthy citizens in former days, have lapsed, and the funds from proper and honest administration have been allowed to be converted into private property. Old almshouses have ceased to exist, other native benevolent institutions have died out, the poor of Dublin have suffered, and trade interests and the cause of education have for nearly a century and a half been crippled in consequence.

DUBLINIENSIS.

WITH THE ARCHÆOLOGISTS.

A CORRESPONDENT who accompanied a party of archæologists, under the guidance of Mr. J. Burt, the hon. sec. of the Royal Archæological Institute, to the town of Guildford, says that they at once proceeded to St. Mary's Church, where Mr. J. H. Parker, C.B., gave a discourse on the edifice, which he considered one of the most curious and interesting examples of work composed of chalk and flint. The earliest portions of the building he attributed to the time of William I. From the church the party proceeded to Archbishop Abbot's Hospital, when Mr. Parker again acted as cicerone. Then came an important part of the day's proceedings: the company lunched at the Angel—an old inn with a new front—and here the Mayor of Guildford welcomed them. At three o'clock they were on the ancient mound crowned by the castle. Here Mr. G. T. Clark, whose extensive and accurate knowledge of ancient castles is probably unsurpassed, addressed the company, giving an admirable account of the remarkable fortress round which they stood. The castle, though of great age, has played no great part in English history. The internal evidence of the buildings of the castle makes it most probable that the whole of it, keep, hall, and domestic buildings, with its *enceinte* wall enclosing above five acres, was constructed by Henry II., very early in the reign; but the castle is not mentioned in his reign, nor in that of Richard I.

In the Pipe rolls the town appears from time to time as contributing to tallage and other imposts, and in 1 Richard I. the park is named in connection with the canons of Sarum. It also appears from the Rot. Curie Regis, 6 Richard I. that an assize was held there. Henry II., probably when he built the castle, seems to have formed a royal park on the opposite side of the river, north of the Hog's Back, the site of which is still indicated by such names as Guildford Park, Wilderness, Stag Hill, and the Manor Farm, the latter being probably the site of the royal lodge.

The town was never walled; the castle never stood a siege. No considerable battle was ever witnessed from its towers; no parliament or great council was ever held within its hall. Nevertheless, Guildford has certain peculiarities of its own not unworthy of notice. After Mr. Clark had given a picturesque and admirable description of the structure, so clear that none could fail to restore in imagination the ancient fortress as it existed in its prime, the whole party proceeded to the remarkable series of caverns in the neighbourhood of the castle, and running under the southern edge of its *enceinte*. These are excavated in the chalk. Mr. Clark thought they certainly are not of British origin, as usually supposed. The plan of the workings excludes this view. No doubt they might be Roman, but there are no traces of Roman buildings in the neighbourhood, and chalk, even hard chalk, is too plentiful along the ridge to be carried hence to any great distance. The most probable supposition seems to be that they were opened by the builders of the Norman castle, who used chalk largely for their inner and, indeed, for much of their more exposed work. The quarries have no communication with any part of the castle. Where they infringe upon its borders they are far too deep to have been employed against it during a mediæval siege.

After one of the pleasantest meetings even of the Archæological Institute, the company reached London, under the same able guid-

ance, shortly after six, having started from London at half-past eleven that morning. We desire to see pleasant and profitable excursions similar to this inaugurated in Dublin on the part of the Architectural Association at the end of summer or early in autumn. It would not be out of place for members of the Royal Irish Academy and the Institute of Architects to join issue in such excursions to remarkable ruins inland or along the border counties. Between antiquarians, archæologists, and architects, there ought to be the closest bonds of union. As individual members, they may belong to different professions, but a members of public bodies whose names we have mentioned, architects, archæologists, antiquarians, and artists are all brothers, and their labours very often tend in the same direction as illustrators and restorers of the architecture of the past.

THE CORPORATION AND THE CENTRAL STATION SCHEME.

STRANGLER, by Jove! Such was the exclamation of a citizen of Dublin when it was announced that the Central Railway Station was, by the fiat of the Parliamentary Committee, cast adrift, to be numbered among the things of the past. Were we to state our deliberate opinion respecting the first inception of this bill, and on through until its last phase, we would have to write it in very strong language, indeed; and, possibly, some thin-skinned corporators and merchants would inform us through their solicitors, procured for the occasion, that we would have to write an ample apology, or the law would be allowed to take its course.

Let it be distinctly understood that we never supported any of the bills, and though we did not entirely agree with the scheme intended to be carried out by the Great Southern and Western Railway, which was less objectionable and more acceptable by far than the Central Railway Station scheme, which would have the effect of absolutely and irredeemably disfiguring our city. The Port and Docks scheme had also its good points. The opposition got up on behalf of the corporators, purported to represent the interest of the city, but it is simple truth to say that the public interest from first to last was sacrificed shamefully, openly, and even covertly, that the personal interests of a few individuals might be served. Totally regardless of cost, money was squandered by our indigent and incapable corporators, who were blowing hot and cold with the one breath. We suppose that in the next audit we will have a cleverly manipulated balance sheet, in which the "Law Expenses" will not be the smallest item. No money at all can be found for the purpose of cleansing the city, which is festering in filth—a disgrace to civilization and humanity; but any amount can be scraped up to pay counsel, and law agents, and assistant law agents, in defending or opposing bills. The bills of fare in the West End hotels of London are very enticing; the viands are equally so; the wines are, of course, choice; and when lassitude or business overpowers the animal, rest on a gilded sofa is indispensable to those possessed of an exuberance of spirits. Hibernian wit in London, if it is racy of the soil, is appreciated; but to crack jokes at the expense of the unfortunate rate-payers of Dublin is carrying the joke a little too far.

We openly denounce the action of the Corporation of Dublin, and the doings of its members on the matter of the Central Station scheme as a gigantic swindle, and a sinuous system of jugglery from first to last. Religion and politics are discussed week after week in our Town Councils to the exclusion of the important matters which should receive undivided attention. Local councils are local parliaments, and as such, their business alone appertains to the welfare and improvements of the city, and not to party or sectarian wrangles. We see no hope for this city until the great majority of the present members of our Corporation are ousted from

the wards they represent, and earnest, upright, and practical men are returned in their places, who are above proof against jobbery and corruption on their own part, and who will fearlessly denounce every attempt on the part of others to sacrifice the interests of this city.

CURRENT LITERATURE.

THE MAGAZINES.

Temple Bar of this month has a fair mixture of the light and solid. One article treats us to information about Sixtus the Fifth, under the name "A Memorable Pope," and an article on "Napoleon's Campaign of Ulm and Austerlitz," will be found worth reading. The current story "Good Bye, Sweetheart," advances, and does not deteriorate in its interests.

Dark Blue has changed its staff, or apparently its staff have made the change themselves. The articles are not at all so varied or interesting, and we miss the names Blackie, Ruskin, Taylor, and others, who, if they did not please every reader singly, yet by their combination, were calculated to please in general from their different styles. Karl Blind, the well known exile, contributes a very good article in the present number on "Spanish Struggles for Light and Right." Some of our Irish writers seem to be breaking ground in this periodical.

Fraser is a remarkably good number, with a mixture of the practical and the amusing. The article from "Cairo to Athens" is scholarly, descriptive, and interesting. "Commercial Bribery and Corruption," is an energetic and daring exposure of the gross commercial corruption that exists at the present time, and which is cutting the very roots of moral and social life in the British Islands. The article ought to be read by our merchants, traders and others, that they may be informed that their practices are understood, and that all are not gentlemen who go "On 'Change" or deal heavily in stocks. Rather, some of these gentlemen ought to be put in the "stocks." Two very amusing articles are those entitled "Clever Fishes," and "Misadventures of Mr. Catlyne, Q.C." The paper on "Competitive Examination and Selection Thereby" deals with the merits and defects of that question, in an argumentative manner, but withal temperately.

Cornhill has several good and useful articles. The authoress of the continued story, "Old Kensington," writes well, but her phraseology is rather too fine, and her style in general is what may be called ambitious. The fair authoress is probably attempting to found or establish a style of her own, like other Belgravian authoresses—"The Invasion of England," "The Paris Theatre before Molière," "Pictures in London and Paris, 1872," are the names of the other articles worthy of note.

Tinsley has a large amount of light freight this month. Mr. James Grant's "Under the Red Dragon," and Mr. Farjean's "London's Heart," are continued, and supply attractive reading. The "Musical Recollections of the Last Century" will be acceptable to many of the old and new school; and the articles on "Dupes" and "Gesticulations," if they do not convey any important intelligence, they will at least afford matter that will interest the reader and secure them being read through.

St. Paul's is a good shilling's worth. Jean Ingelow's "Off the Skelligs," and "The Laureate of the Nursery," by Mr. Robert Buchanan, are the most noticeable contributions. There is some poetry, but it does not possess any distinguishing merit.

St. James's Magazine for the month is fairly laden with good and interesting matter. Sir John Bowring gives us another instalment of his "Nosegay of Translations." "The Adventures of Three Englishmen and Three Russians in South America," and "Miss Dorothy's Charge," are among the good articles. A political paper, which will

possess an interest for politicians of different hues, is that entitled "The Debate of the Colonies." It is smartly written, and tells of a transformation in public opinion on the Canadian question.

London Society is, with the exception of an article on "Chatcaubriand" and "The Romance of the Ring," rather poor in matter of interest this month. We have spoken before and we now do so again of the very good though peculiarly-executed illustrations of this magazine. Indeed, the illustrations of *London Society* go a good way to enhance the value of the magazine.

ENIGMA.

(Written for the IRISH BUILDER.)

I am first of all my race,
Of highest grade I'm told,
To me my kindred all give place,
A premier rank I hold.

I'm ever with the great,
The gallant, and the brave,
Yet must I tell, perchance, my fate,
I'm with the pauper and the knave.

There is no doubt they cannot be,
Nor starve, nor steal, perhaps:
Without my aid you plainly see
Even their very names would lapse.

Enough! my place is fixed in heaven,
Tho' needed not, I'm sure,
Because, if everything ran even,
You'll find 'tis but a sinecure.

In earth 'tis not my choice,
Though people think it fair,
To tell me I have lost my voice,
And yet you find me there.

And now from out a tiny star
I'm peeping in the midst of space;
Twice you'll see me from afar,
First in the highest place.

Next on the margin of the sea
In every wave I roam,
And in each dash of spray,
Even in its glittering foam.

Again I'm most perceptible in air,
I'm breathed in every breath,
And I always have my share
With you silently in death.

THE WATER SUPPLY OF LONDON AND DUBLIN.

Dr. Frankland reports that the improvement in the Thames water noticed during May was maintained in June. The water drawn from the main of the East London Company on the 12th June contained, however, floating particles and moving organisms, arising probably from foulness in the main, rather than from imperfect filtration. All the other companies delivered clear and transparent water. Taking unity to represent the amount of organic impurity contained in a given quantity of the Kent Company's water delivered in June, the proportional quantity contained in the water of the other Metropolitan Companies was:—New River 1·8, West Middlesex and East London 2·9, Chelsea 3·1, Southwark and Lambeth 3·3, and Grand Junction 3·7. Major Bolton, the Water Examiner to the Board of Trade, reports that owing to the heavy rainfall in May the water of the Thames between the middle of May and the middle of June, at the intake of the London water companies drawing their supply from the Thames, was generally more or less turbid. With the exception of the West Middlesex, the storage reservoirs of the companies are insufficient to allow them to avoid taking in turbid water. Additional reservoir capacity is, however, now in course of construction by several of the companies. The recent scarcity of water in Bermondsey is reported to have been due to this deficiency of storage reservoirs on the part of the Southwark and Vauxhall Company. Dr. Hill reports that the Birmingham water in June was more turbid, and contained a larger quantity of all forms of nitrogen than during May.

The water supply of Dublin, for some time

past, has been sufficient in the favoured districts of the city, but there is a necessity for a continuous and constant supply to the homes, or in reach of the homes of the poor. We cannot pronounce, of late, that the Vartry supply is particularly pure, as complaints more than once have reached us of nuisances being allowed to drift in unnoticed near to the source. We hope our able City Analyst will make inquiries into the matter, for if there be one thing of more importance than another, in a sanitary sense, it is the maintenance of a pure water supply, and more particularly during the summer.

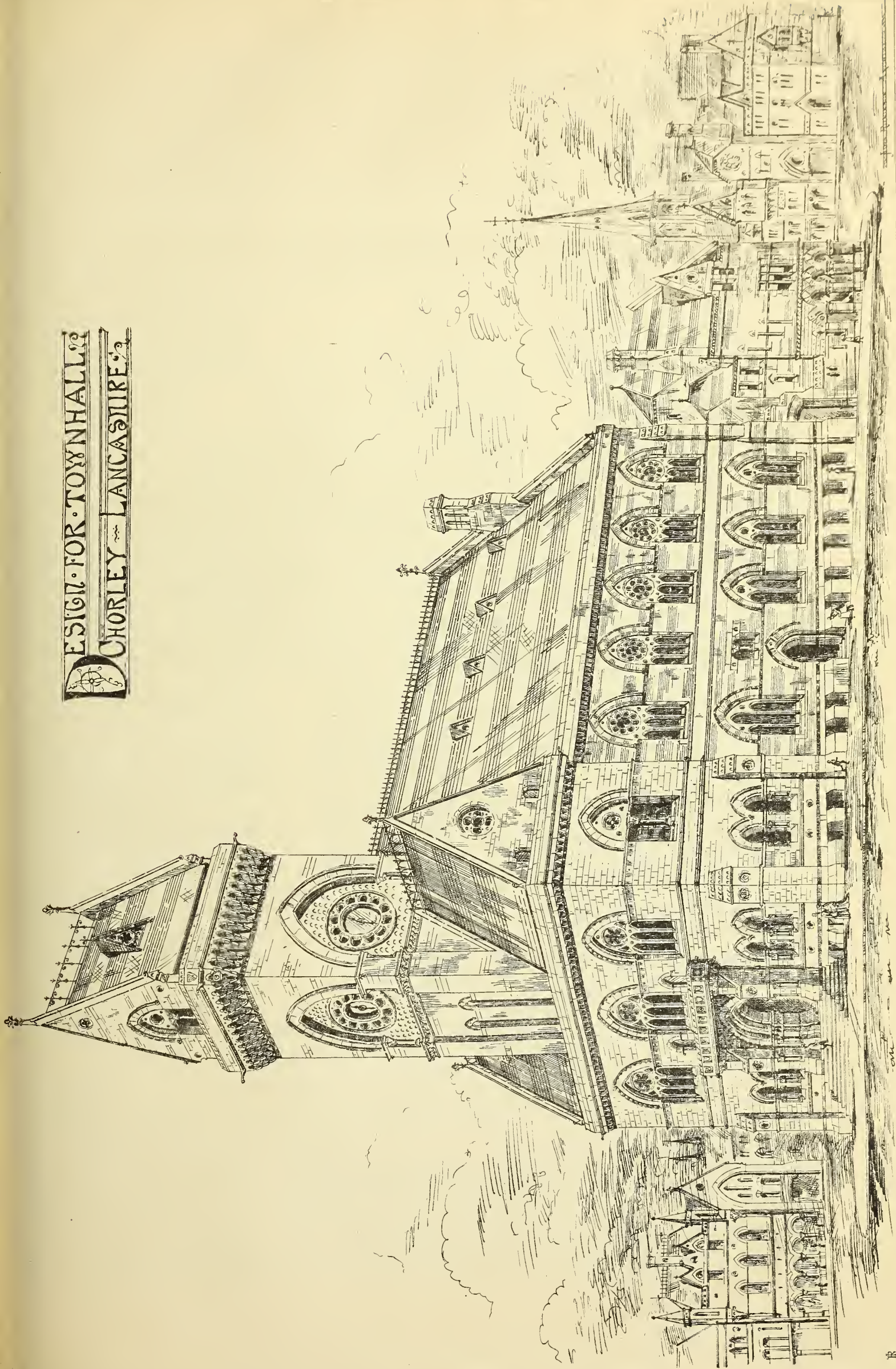
The condition of the Liffey calls for immediate attention, but the Corporation, as usual, are more intent on political questions than on attending to the improvement of the city. The summer will be allowed to pass over, and even now an entire year has nearly elapsed, and the projected Convalescent Home is nowhere to be seen as a practical reality.

L A W.

ACTION FOR FLOODING OF PREMISES.

Cherry and Smallbridge v. the Corporation of Dublin.—In this case the plaintiffs, owners of the extensive concerns known as Seville Works, sued the Corporation for damages resulting from successive floodings of their premises in July, September, and October, 1871, caused by a newly-constructed sewer on the canal bank on one side of these premises. It appears that previously to 1869 the sewage of the district above Newcomen-bridge was discharged into the canal at that point; the navigation being thereby impeded, the owners of the canal, the Midland Railway Company, took proceedings against the Corporation, which resulted in the latter undertaking the construction of a new sewer to intercept the sewage above Newcomen-bridge, and convey it along the canal bank to the Liffey. Before this sewer was quite finished, in the latter end of 1869, the plaintiffs had their premises flooded for a first time, and were obliged to seek legal redress for the loss and damage. The action was not, however, brought to trial; it was settled by the payment to the plaintiffs of £75 and costs. Unwarned by this, the Corporation made no alteration in the construction of their sewer by widening or otherwise, or by providing a sufficient outlet in another direction for the storm water from the higher levels above Newcomen-bridge; in consequence, frequent floodings took place in 1870, but as that was a remarkably dry year these floodings were not of a serious character. The heavy rains in July, 1871, and in October, produced floodings more of the character of inundations, the premises having been covered to the extent of from 5 to 14 inches, the works stopped, the hands thrown out of employment, and considerable damage done to the goods in stock. Mr. Thomas J. White, a former owner of the Seville Works, proved that he lived there from 1828 to 1847, and during that time no flooding of the premises had taken place. A yardman of the plaintiffs proved to have been in the employment of the successive occupiers of Seville Works between 1849 and the present time, and knew of no flooding before 1869. Mr. Cotton, C.E., Mr. Fitzgerald, C.E., Mr. Longfield, C.E., were examined for the plaintiffs. They proved that the sewer, egg shaped, 5 ft. by 3 ft., falling to 2 ft. 6 in., was large enough for ordinary sewage; it was wholly insufficient for holding the storm waters from the upper levels on occasions when high tides prevailed in the river; on these occasions for eight hours the tide-gates below should be closed, and the sewer should act as a reservoir to hold the floods pouring down from above. Mr. Cotton stated that engineers were bound to provide for such a state of things. In the London drainage system provision was made for the discharge of storm water from the higher levels direct

DESIGN FOR TOWNHALL,
CHORLEY, LANCAIRE.



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OF THE
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into the Thames. For the Corporation, Mr. Brett, C.E., Mr. Parko Neville, City Engineer, and one of his assistants, Mr. Kenny, were examined. Their evidence did not contradict the scientific evidence for the plaintiffs; they admitted that the sewer was insufficient for the occasions when the floodings took place, and they had sought to remedy the evil by laying a pipe of 18 in. diameter under the canal in 1870 at a point about 2,000 ft. above Newcomen-bridge to relieve the sewer by taking some of the storm water across to the Tolka. In the cross-examination of Mr. Kenny, it came out that on the occasion of one of the floodings a tin can was found in one of the tide-gates, and a tin box in another, by which these gates were kept open and the tide admitted. The tide-gate man, on being produced, swore that this was the only occasion those gates were opened in this way to his knowledge. The jury, on the conclusion of the evidence, said it was unnecessary that counsel should address them, and after a short deliberation found for the plaintiffs £650 damages and costs.

AUTHORITIES ON THE MAIN DRAINAGE OF IRELAND.

PENDANT to recent articles in the IRISH BUILDER, some correspondents interested in the matter asked us to kindly supply them with a few authorities upon the subject, with a view to obtaining some statistics to use in a public discussion. Well, as the subject of the Commercial History of Ireland is a very interesting and useful study, we will be happy in supplying them with references, which they may consult with advantage:—*Laurence's Interest of Ireland* (1682), *Browne's Tracts* (1728), *Dobbs on Trade* (1728), *Hutchinson's Commercial Restraints* (1779), *Arthur Young's Tour in Ireland* about the same date, or somewhat later; *Sheffield on Irish Trade* (1785), *Wallace on Irish Trade* (1798), *Statistical Essay on the Population and Resources of Ireland*, by William J. MacNevin, published in the *Paris Argus and Moniteur* in 1803, and afterwards reprinted in this country and America. The third volume of the *Transactions of the Royal Irish Academy* contains an article by Mr. Jervis Bushe, which may also be consulted. The ordinary revenue and great resources of Ireland, constituting the public income of the country, is shown in a work by Mr. Jepson Oddy, published at the commencement of the present century. See also *Monthly Magazine* for April, 1802, the several parliamentary reports published from time to time, articles in the *Dublin Citizen Magazine*, 1839-42, the publications of the late Repeal Association, the late Michael Staunton's pamphlets, when editor of the *Dublin Morning and Weekly Register*, and the late John O'Connell's works. Various other articles lie scattered through the files of the Dublin press, extending over a number of years; but the task would be rather a tedious one to hunt them up and docket them.

The list we have furnished will, however, we think, prove amply sufficient for all practical purposes.

BENEFIT BUILDING SOCIETIES.

We have ventilated lately the question of Building Societies in general and particular, and we hope with some advantage to the community and those specially interested in their welfare. We intend to do so again and again until a reform in their conduct is observable. At the same time, we are anxious and willing at all times to open our pages to all practical disputants who have aught useful to say on the matter. We expect facts, however, and some figures also, and no special pleading on the subject. We print a letter below, from a member, we presume, of a well-known Irish building society, asking us to suspend judg-

ment upon the whole question at issue until a certain counter statement is issued through the medium of a general meeting of this society.* We will suspend judgment to prove that we are not indisposed to give fair play, though we believe, at the same time, that the data we furnished are reliable, because they were in substance the evidence, or based on the evidence, given by the members of the building society in question, and others, at the late Commission appointed by the Government to enquire into the management of Irish, English, and Scotch friendly and benefit building societies. Here, however, is the letter, which must be accepted for what it is worth:—

TO THE EDITOR OF THE IRISH BUILDER.

"Audi alteram partem."

SIR,—You may suppose that, as Government commissioners and inspectors should not belong to any party, my motto is without application. But in this case there is a side yet to be heard; and, as one very much interested both in an Irish building society and in the welfare of the working classes, I shall ask you to suspend further comment on the conduct of these societies in Ireland (founded, as it is in the articles in your two last numbers, on the data of Mr. Daniell's report), until you shall have had an opportunity of proving that report through other media than the candour which should be expected to characterise such a document.

Your argument against some—one in particular—of these societies is, that they have closed their share list, and thereby ceased to be a boon to the working classes, for whose benefit chiefly they were intended. You will understand my position when I take it on the ground that the statement respecting the closing of the share list is not correct, and is unfair and dangerous, as misleading the public and the parties interested to a wrong judgment in the case.

I am sorry not to have been in possession of facts sufficiently early to enable me to write for your last issue. Be so good as to publish this note, to prevent further misapprehension.—I remain, sir, your obedient servant,

J. T. N.

CIVIC LYRICS.—No. XVII.

"THE MEN OF THE TIME."

Who will cleanse the Augean stable,
Where truth and honour is a fable?
If they're willing, who is able?—
The People.

Who will gibbet sneaks and jobbers,
Hangers-on, and loafing lobbies,
Called by some our public robbers?—
The People.

Who will bring folks back to reason,
Once prosecuted for their treason,
When that fruit was most in season?—
The People.

Go ahead, ye middle classes;
Strike them hard, ye working masses,
Or dub yourselves a race of asses—
The People.

CIVIS.

TOWN HALL, CHORLEY, LANCASHIRE.

OUR illustration with present number is lithographed from a design submitted by Mr. J. L. Robinson, of this city, for the above-named building. There were no less than sixty-three sets of designs sent in to the Commissioners in competition. After considerable discussion on their merits, the entire matter was referred to Mr. Edward G. Paley, architect, Lancaster, who in his report observed that—

The sum named (£10,000) in the "instructions to architects" is quite insufficient to cover an area of more than 15,000 yards, with substantial, well-constructed buildings, such as the Commissioners might be expected to erect for the town of Chorley. It is to be regretted that the intending competitors did not try to get this sum increased 50 per cent., which, in my opinion, would have been the minimum required for buildings of this

* See report on another page.

character and purpose. Had it been possible to erect the buildings for the amount named in the instructions, I should have limited my attention only to those plans that had kept within the prescribed sum, as not one of them, however, (with any claim to be considered) can, in my opinion, be carried into execution for the sum named, this most important condition as to excessive cost cannot be so used. In selecting the three best plans, I have carefully kept in view that the award should be given, not to the finest architectural design and composition, but to the plan that shows the best appropriation of the ground, combined with a most suitable elevation, in fact, the competitors who have best studied the ground and followed most closely the instructions.

Many of the designs are cleverly planned, and show great talent as architectural compositions, but could not be built for three times the sum named.

More explicit "instructions to architects" as to the buildings and accommodation required should have been given, and it would have been better to have furnished only a block plan of the site.

I select the following designs as the best:—No. 1, "Cotton;" No. 2, "To be or not to be;" No. 3, "Let Chorley flourish" (Set No. 1).

NEW TOWN HALL, DALKEY.

AN ancient building in the Township of Dalkey, known as Goat's Castle, has been for some time in course of repair, or, in modern phraseology, "restoration," for the purpose of being utilised as a Town Hall. We are informed that the cost was about £500. The work was executed by a local builder, under the direction of Mr. J. S. Fuller, Architect. The inaugural ceremony took place a few evenings ago, when the Chairman of the Township Commissioners entertained a large number of friends at dinner, in (as a morning journal informs us) "the club room of the edifice!"

GLEBE-HOUSES, DIOCESE OF MEATH.

THE Meath Diocesan Synod, at its meeting on the 9th inst., adopted the following as part of a plan for the future management of glebes:—That glebe-houses, as they might become vacant, should be put into a good state of repair at the expense of the glebe fund; that all outside wood-work should be painted once in four years, and inside wood-work once in ten years; all the work to be done subject to the approval of the diocesan architect; that all roofs, eave-gutters, iron pipes, &c., should be kept in repair by the glebe fund; that the management of the glebes should be entrusted to two committees, consisting, respectively, of the members of council for the eastern and western divisions, with the rural deans and the archdeacon, three to be a quorum; that each glebe-house should be inspected at least once a year, and such repairs executed as the diocesan architect should direct; that any additions to the glebe-house or offices should be made at the expense of the incumbent or of the glebe fund, or by part contributions from glebe fund and incumbent; if at the expense of the fund, six per cent. to be added to the rent; in either of the two other cases, two per cent. only to be added; and in the case of sudden damage, the rural dean, on the requisition of the incumbent, and with the approval of the diocesan architect, might lay out a sum not exceeding £10 in regard of same; that the incumbent should in all cases pay a rent to cover dilapidations and insurance over and above whatever rent he might have agreed to pay the parish; that if a parish purchase the glebe-house and land, the council would be prepared to hand over same to the select vestry, who should keep it in repair, for which purpose they would be paid out of the glebe fund such sums as the diocesan architect might certify for; and that no sum exceeding £10 should be expended, and no new work undertaken without a proper plan and specification by the diocesan architect.

SUBURBAN GARDENING AND CITY WINDOW GARDENING.

IN our recent sketch of early gardening in Ireland, supplemented by some notes on present day practices, we referred to many existing wants and to the neglect of not utilizing public squares, parks, and suburban gardens and spaces, by a more general culture of flowers all the year round. We also spoke of the sanitary aspects of the question, and the effects that gardening and window-gardening, where the former could not be prosecuted to any great extent, would have in improving and elevating the tastes of the people. Our articles, we are glad to note, were not written in vain, as outside our island as well as within it, our sketch was availed of and our advice commended by several journals. We find in a London evening contemporary an interesting article on "Urban Gardens," in which the identical opinions we gave expression to are again reiterated in other words. The article in question has its value, however, and as it gives some good advice and treats the matter in a general way, we are inclined to give it the benefit of an additional circulation through Ireland. Though written with a view to London tastes, it is equally applicable to this country. The article commences by saying—"Is it admissible to suppose that the poet of 'Lothair' wrote that refreshing description of Corisande's Garden after an omnibus tour through the metropolitan thoroughfares, where green railings defend parallelograms of close-shaven grass, stucco villas, and manifold lines of conchological specimens in grim C borders? The assumption can hardly be maintained; but such a survey is certainly calculated to impel the poet, or, let us say, an heresiarch whom *Le Nôtre* would commit to the Bastille, to seek relief from its depressing influences in the fertile realms of free imagination, rearing 'huge bushes of honeysuckle and bowers of sweet-pea and sweetbriar, and jessamine clustering over the walls, and gilly-flowers scenting with their sweet breath the bricks from which they seem to spring.' Those prim Roman horticulturists who gave birth, through later Italians, Spaniards, and Flemish, to the Dutch ideal of Nassau William, have much to answer for to modern citizens of Cockaigne—much in the way of sanitary loss, and more in that of artistic culture and mental recreation. We have to thank Virgil, the *irreconcilable* uprooter of *lappaque tribulique*, for many miles of bare brown mould, and roof after roof of naked grey-brick walls, bordering habitations that are assuredly in some need of relief and ornament, in thoroughfares of the city that might have been made gay and gracious. There is not in London the excuse that could be alleged for such a state of things in Paris, Berlin, or nearly every capital of Europe, with the exception of Vienna. London possesses more open spaces than any of these cities; and it does not grow inwards, compress its streets raise its houses, curtail its gardens; but spreads outwards into suburb after suburb. What could not be made of these facilities for brightening the aspect and purifying the atmosphere of the legendary *ville vaporeuse*? Long lines of Corisande's gardens, small wildernesses, after neglected Bacon's plan, could be made to yield not a little corporeal and æsthetic enjoyment. But the great aim of the Cockney gardener is neatness, not health or beauty *pure et simple*. So that his small estate is free from bottles and rubbish, he is content that it shall be free from flowers also during the greater part of the year. He enjoys the black surface of black mould, the trim bare shrubbery, where not one dead leaf remains half a day, the clean gravel walks and regular box borders, all arranged with the painful nicety of a Flemish kitchen. But Flemish kitchen gardens produce very acceptable viands at times, and the city horticulturist's domain contains nothing. They are dingy, dull, and wet and naked in winter, spring, and early summer. When the bedding out period arrives, the professional nurseryman is communicated with,

and sends in a cartload of petunias, verbenas, geraniums, and the like, to clothe the desert gorgeously for about six weeks or two months in the year. The result is a meagre, formal prettiness of the old Keepsake, or Souvenir fashion—a prim, pruned, and, as it were, starched and whalebone beauty, of the class that looks well in the family portrait gallery, but with which one scarcely cares to form an intimate connection. The same system of planting out à la Paxton (who by the bye kept a private corner at Chatsworth for the cultivation of weeds) is followed in nearly all parks and squares. The spaces at Lincoln's Inn are not very noteworthy examples; but Kensington Gardens, Hyde Park, and nearly all the central squares and gardens would be absolutely beautiful at this moment were it not for these trees, swards, shrubberies, and flowers, on the usual squares and lozenges, and the "pies" of bare earth. Londoners have no peculiar affection for the "apple-pie" order of beauty. In the vast majority of great seigneurial pleasaunces the same facts are observable. They are bare the greater part of the year, until the owners desire to make a display before their guests at the shooting season. The original mistake is that of the ultra-doctrines of Scotch gardeners—the scientific landscape manufacturers—men of systems taken from Pliny's Xystus, who are imitated by all the ignorant amateurs who have charge of what should be oases of beauty and ornament in numberless urban thoroughfares. An infinitely small proportion of them know that some plants will grow in any soil, that their plots might be filled with flowers and greenery all the year round; and of those who do know, again, it is the smallest proportion that take more than the faintest and most fitful interest in the matter. Women with a chastened taste for the pastoral have charge of all; and they are swindled and brow-beaten by the professional gardener, and inoculated with the severe notions of the small local *Le Nôtres*. They hold box sacred as Druid's ivy, a brick wall a necessary horizon, a spick-and-span lawn and weedless beds the highest possible attainment of art, and the brief blaze of geraniums once a year the very apotheosis of all horticultural success. Hideous as such culture makes them, it is no matter for wonder that scarcely any proprietors of urban gardens ever make the slightest use of their domains for purposes of rest, exercise, or recreation.

There is no school in Great Britain at which the elements of garden culture are taught, yet a change would be easy and inexpensive. No deep education is needed, for instance, to devise an improvement on the blank walls, which suggest the next-door neighbour as a creature to be more guarded against than the chance acquaintance of a foreign table d'hôte, or a stranger in a railway carriage who proposes cards. Against the smoky, gloomy, grey bricks a bank of mould can be raised, and bushes, flowers, creepers planted thereon, so as to almost give the idea that a Clapham back garden is bounded by the primeval forest. When space cannot be afforded, small ferns and alpine plants can be trained against the wall, or the Roman method—followed in many French provinces—adopted, and the walls painted so as to represent a near landscape, shrubbery, &c. This is an Opera Comique species of decoration, but it is surely better than the geometrical squares of brick and plaster. In the matter of stock, immense variety can be achieved in the smallest villa back gardens. Since it is seemingly ineradicably British to have a weakness for wall-paper patterns in beds and stock they can be retained, they and the masses of colour; but other nooks can be devoted to informality, change, and indefinite tangle and variety. In shrubberies no larger than a drawing-room there may be grown narcissi, Solomon's seal, blue amaryllis, Mary lillies, the yellow jasmine, westeria, honeysuckle, everlasting peas, tropæolums, clematis, and successions of flowering creepers. With such a list slightly elongated, bright

colours and pleasant scent can be always with the city man when he leaves the counting-house. Then many weeds might be spared—dandelion, a tough nettle or two, and celandine, which is often as beautiful as cyclamen. Many of these growths yield ozone in enormous quantities, and to suffer them to remain in small proportion is always to depart a little from the straight line of formality. If such a system were to be formed, and the hideous structures in spurious rocks, called rockeries, abolished, that healthy, happy habit of open-air lounges—now all but obsolete it seems—might revive for ten thousands of London folk, who have no other opportunity of catching a glimpse of growing flowers during eleven months of the year than that afforded by some poor railed-in slices of *rus in urbe*."

Thus speaks our London contemporary, and, as pendant, we may add, on the matter of window-gardening in towns and cities, a show of fuchsias, geraniums, variegated box, and other plants suitable to the adornment of city casements, was held in the first days of the present month in Dean's-yard, Westminster, under the auspices of the Society for Promoting Window Gardening among the Working Classes. The exhibitors comprised artisans and their wives, the children of poor schools, and even the inmates of the hospital and workhouse of the district. No professional gardeners were permitted to compete, but the display of flower and leaf under the marquee in the midst of the green cloister-surrounded area was very creditable, nevertheless, and the more interesting because of the restriction. An umpire from the Horticultural Society was on the spot to judge the various specimens, and the Earl of Shaftesbury distributed the prizes in person.

We would like to see a similar show taking place in Dublin, on the same or similar conditions, and prizes given to our artisans and working classes for the best specimens of flowers and plants raised by window-gardening.

THE GENERAL CONFERENCE OF BRITISH ARCHITECTS.*

THE following is the report of the committee appointed by last year's Conference, on the subject of Competitions:—

At the final meeting of the General Conference of Architects, held at the Institute on May 26, 1871, the following resolution was passed:—"That with reference to the subject of Architectural Competitions, the council of the Institute be requested to appoint a special and permanent committee—viz., one member from the Fellows, one member from the Associates, one member from the Architectural Alliance, one member from the Architectural Association, with the addition of Mr. A. Strong, who will aid the Secretary of the Institute in ascertaining the views of provincial architects on these matters. That this committee be requested to take into consideration the various papers or proposals that have been issued on this subject by the Institute, by the Alliance, and by the Association, and to base on those documents, and such other evidence as may be obtained, some clear and short conditions, which, when fully sanctioned, as hereafter described, shall be issued as a document to be generally adopted by all architects in professional competitions. That this report, when sanctioned by the council and confirmed at a special general meeting of the Institute, duly convened for the purpose, be forwarded to those members residing in the provinces who have been invited to attend this Conference; and that the same report be submitted for approval at the next general Conference (which it is hoped the council will convene in the month of June, 1872), so as to ensure perfect unanimity of action and opinion amongst architects practising in this country. That this committee shall be requested to act as a permanent committee, to put themselves in communication with all promoters of competitions, forwarding them a copy of the several conditions agreed upon as the only terms on which architects should enter upon the competition, and publishing in the professional papers the result of this communication for the information of competitors and of the public, it being understood that this action shall not take place until after the report has been discussed and confirmed at the Conference in 1872."

* See page 188 *ante*.

In accordance with the above resolution, the special committee subsequently appointed by the council to consider the subject of architectural competitions, beg to report that they held several meetings prior to the 27th November, 1871, on which day a series of questions was transmitted to the members of the Institute, to the Architectural Association, to the Royal Institute of Ireland, to the Glasgow Institute of Architects, to the Manchester Society or Architects, to the Birmingham, Glasgow, Liverpool, and Sheffield Architectural Societies, to the Northern and Nottingham Architectural Associations, and to such other architects as appeared upon the list of names prepared for the purposes of the Conference. The answers received—eighty-two sets in number—were collected and scheduled, and proved of the greatest assistance to your committee. The experience and views of the majority of the contributors appear to be as follows:—

Q. 1.—What experience you have had in competitions, whether open or limited; in what classes of buildings; whether at the instance of public bodies or private promoters; and whether the decisions have been arrived at with or without professional advice.

A. 1.—Considerable experience of the most varied kind in both public and private competitions, instances and results being given by name, mostly without professional advice.

Q. 2.—What views have you formed of the customary management of competitions; whether you have found them to be generally conducted with fairness; what improvements you can suggest in such management; and what means you would propose for securing the adoption of such improvements.

A. 2.—Management “generally” and “always” unfair, owing chiefly to the ignorance of building committees. Improvements suggested: Standing Institute Committee to assist promoters by advice; standing advertisement of “suggestions to promoters;” a table of rules; more complete information in the instructions; drawings to be less elaborate; ultimate employment to depend on estimate being within a certain percentage of the sum named; non-adherence to instructions to exclude; professional assistance.

Q. 3.—What advantages, or the reverse, you consider have accrued to the profession by the practice of competition; whether in your experience it has really afforded to meritorious architects a better opportunity of advancement than they would otherwise have had; and how far the interests of other architects of equal ability have been affected thereby.

A. 3.—The advantages to the profession at large have been “none” and “few.” Competitions are allowed to be advantageous if conducted with fairness. The system is thought to afford untold members of the profession certain opportunities, whilst it increases knowledge and experience. The interest of other architects of equal ability often prejudicially affected.

Q. 4.—Whether you have found from your own knowledge that the selection of a successful design is determined, as a rule, by the actual practical merits of the design; or whether by any other causes which you can mention; also whether the successful competitor has generally been employed to carry out the work, and if not, why.

A. 4.—Selection not determined by merit. Causes for selection: showy drawings, false estimates, and private friends on the building committee. The successful competitor generally employed to carry out the work.

Q. 5.—What idea have you formed of the prime cost of a competition design, in money out of pocket for clerks’ and other assistance, &c., with reference to particular cases and to the estimated cost of the buildings; and what ought to be allowed beyond this for the architect’s own time.

A. 5.—Experience as to prime cost extremely various, ranging from $\frac{1}{4}$ to 20 per cent., and from £2 to £800, own time not included.

Q. 6.—Whether in your opinion the condition frequently laid down by committees, requiring the successful architect to let the premium merge in his ordinary professional commission, is justified by the idea that the labour expended upon the premiated design materially diminishes his subsequent labour.

A. 6.—The practice of “merging the commission” is not justified.

Q. 7.—Whether you have been engaged in competitions when all the competitors were paid for their designs; or whether in cases where no premium has been offered at all (except promised employment on the proposed building); and in each such case what have been the results, and what opinion you have formed upon the merits of the system.

A. 7.—Experience in cases where all competitors were paid, or where no premium except promised employment, is nearly equally divided. Opinions in the former class, that better designs were ob-

tained, and that private friends decide the question. Opinions in the latter class, that there should always be an offer of premiums.

Q. 8.—What recommendations your experience leads you to make with regard to the number, character, and scale of the drawings which ought to be required to be submitted in a competition; what value you attach to a public exhibition of the designs, either before or after the selection; and what benefit you consider to accrue from the employment of a professional judge.

A. 8.—Recommendations: the drawings to have the character of preliminary sketches only; to be only as many as are strictly necessary; no coloured drawings; perspectives to be uniform in number and size, and etched, or in sepia, or in single tint. Scale from one-sixteenth to one-eighth. Exhibition after the award. Professional advice very desirable in order to ensure adherence to instructions, and to judge as to suitability and cost.

With this material at hand, and aided by the Institute report of 1839, the report of the Architectural Association in 1849, the proceedings at the General Conference of 1871, information as to the practice in France, and a copy of the code of rules in general use throughout Germany since 1868, your committee continued their meetings; and now beg to submit, as the result of their attentive deliberations, the following draft of a series of rules, which they hope may meet with the approval of the General Conference of 1872. They are deeply impressed with a sense of the great and manifold evils arising from the defective system upon which competitions have been hitherto conducted in regard not only to the private interest but also to the public reputation of the profession, and they believe that these evils might, in a great measure, be rectified by the adoption of some such code of rules as they now beg leave submit for your consideration.

CHARLES BARRY.
ROBERT KERR.
T. ROGER SMITH.
T. H. WATSON.
R. PHENE SPIERS.
ALFRED STRONG, *Hon. Sec.*

May 3, 1872.

Mr. A. Strong, Hon. Sec. of the Committee, read the following general regulations proposed by the Conference Committee for the conduct of architectural competitions.

I.—The promoters of every competition should appoint one or more professional assessors, whose names shall be published in the advertisements and instructions. It will be the duty of these assessors:—(a) to advise upon the details of the instructions; (b) to determine which of the designs conform to those instructions; (c) to exclude all others; and (d) to advise the promoters on the relative merits of the designs admitted to the competition.

This regulation was unanimously agreed to as it stands. Mr. Strong then read the second regulation, which was also agreed to without discussion:

II.—Every member of the committee of adjudication and every assessor must necessarily abstain from taking a part in the competition, or in the execution of the proposed work.

The Secretary next read the third regulation:

III.—The number and scale of the required drawings must be distinctly stated, and they should not be more in number or to a larger scale than necessary in order clearly to explain the design. If perspective views be required, the instructions should be such as to ensure uniformity of size, number, mode of colouring, &c.

This regulation was agreed to unanimously. The next regulation proposed was:—

IV.—Competitors should be allowed the option of using a motto, or signing their drawings.

Considerable discussion arose upon this regulation, which was eventually struck out by a large majority. The fifth regulation proposed was as follows:—

V.—The instructions should clearly state whether the amount proposed to be expended will be strictly limited, or may be considered as approximate only.

This clause also gave rise to considerable discussion, and it was eventually amended by the insertion, after the word “whether,” of the following words: “the plans are to be marked with their authors’ names or by mottoes, and whether.” The fifth regulation, as amended and adopted, therefore reads as follows:—

V.—The instructions should clearly state whether the plans are to be marked with their authors’ names or by mottoes, and whether the amount proposed to be expended will be strictly limited, or may be considered as approximate only.

The sixth, seventh, eighth, ninth, and tenth regulations proposed by the committee were all agreed to with but little discussion. They are as follows:—

VI.—Designs ought to be excluded from competition (a), if sent in after the period named (accidents in transit excepted); (b), if in violation of any of the instructions; (c), if they do not substantially give the accommodation asked for; (d), if they exceed the limits of site, and (e), if the assessor (with or without the assistance of a surveyor) should determine that their probable cost will exceed by ten per cent. the intended outlay, or the estimate of the competitor.

VII.—All submitted designs, unless excluded under rule VI., should be publicly exhibited after the final award. The report of the assessor and the decision of the committee shall be published at the time of exhibition.

VIII.—It should always be an undertaking by the parties inviting plans in competition that—subject to compliance with the conditions, especially as to a tender being obtained within ten per cent. of the competitor’s estimate—the author of the design declared to be the best is to be employed on the work, if carried out, subject to any special arrangements which may be recommended by the assessors in the interest of the work.

IX.—The first premium should not be less than one-half per cent. of the proposed outlay; it is not to be merged in the commission, but must be subsequently increased by one-half per cent. if the premiated design be not carried out, or if the work be abandoned. Other premiums should be offered, the aggregate amount of which should not be less than one per cent. upon the intended outlay, divided into as many premiums as may be convenient. The above applies to works over £10,000 in value; in the case of smaller works the percentage of remuneration should be increased. In cases of limited competition each competitor should receive some payment in order to meet his expenses.

X.—Designs for which premiums have been adjudged and paid ought not thereby to become the property of the promoters.

The Chairman, in putting the foregoing regulations collectively, as amended, to the meeting, remarked that he had no doubt they would be adopted, but he wished to make a few observations. Personally he had strong doubts as to the utility of competitions as a general thing, and therefore he hoped that one result of the adoption of these rules would not be to encourage every little local board and every small vestry to entertain the impression that in any petty little schoolhouse or work of that kind the proper thing to do was to invite a competition. Competitions might be occasionally advantageous, as in the case of important national works, though even under these circumstances their utility was doubtful; but if the idea were to go forth that the Institute had issued these regulations with the express purpose of encouraging competitions, it would act greatly to the detriment of the profession. He therefore suggested that if the regulations were adopted, the heading which should precede them should read as follows:—“General Regulations adopted by the Conference Committee for the conduct of architectural competitions in cases in which competition shall be justified by the extent and importance of the work, or by other special circumstances.”

The Chairman’s suggestion was adopted unanimously, as were also the foregoing regulations as amended, and the report of the committee.

Professor Kerr having read a tentative form of conditions for a competition which he had drawn up, votes of thanks to the committee, chairman, &c., were unanimously accorded, and the meeting terminated.

VISIT TO MESSRS. CUBITT’S WORKS.—CONSTRUCTION AND MATERIALS.—THE EFFECTS OF FIRE.

FOURTH DAY.

On Thursday upwards of forty or fifty of the gentlemen attending the Conference visited the well-known building firm of Messrs. Cubitt, two of the principals and the engineer of the establishment conducting the party over the concerns. The carpenters’ and joiners’ shops, the engines and engine houses, the sawing machinery, the wrought-iron girder shop, the casting shop, the marble masons’ shop, and other departments were visited; the principals explaining the method and manipulation belonging to the preparation of work in each. Three hours were spent here in the examination, the visitors leaving well satisfied with what they had seen.

At the afternoon meeting, under the presidency of Mr. Horace Jones, a paper was read by Major-General Scott, R.E., on “Clean Drains and Improved Mortar,” or otherwise,

the selcuitic method of treating lime. This was a very important and practical paper, which we may hereafter find room for. At the conclusion of the reading, several of the architects present made some remarks upon the practical bearing of the subject, Mr. C. Barry moving a vote of thanks to Major-General Scott, and Mr. Edmeston seconding it.

The Chairman next called upon Mr. R. W. Edis, F.S.A., who read a paper entitled "Notes on the Recent Conflagration of Paris," during which he said, of the general construction of Paris considered in relation to preventing the spread of fire, he could not speak too highly. The effects of fires on different forms of building construction was practically discussed throughout. Mr. C. C. Nelson proposed a vote of thanks, and Professor Kerr seconded it. Several other gentlemen took up the subject, and many useful opinions were elicited on the subject of Mr. Edis's paper.

PROFESSIONAL PRACTICE AND CHARGES.— EMPLOYMENT OF SURVEYORS, ETC.

FIFTH DAY.

At the adjourned meeting for the purpose of further considering the subject of professional practice, held on Friday, Mr. Godwin moved as an amendment, "that the schedule of 1862 be re-affirmed," and stated his reasons for considering that issuing a new schedule would prove an injurious step. This was seconded by Mr. C. F. Hayward, and, after a vigorous discussion, was negatived on division, and the new schedule adopted.

The employment of surveyors was then entered into at some length, but no conclusive decision was come to on the subject, owing to the diversity of practice still prevailing throughout the country.

THE CONFERENCE DINNER.

The Conference dinner took place on Friday evening at Willis's Rooms, the President, Mr. T. H. Wyatt, in the chair, with the three Vice-Presidents of the Institute, Mr. Horace Jones, Mr. Waterhouse, and Mr. T. Gibson. About 110 sat down to dinner, which included the President of the Institute of Civil Engineers, and some other of his brethren, and several London and provincial architects. There were also a number of invited guests, comprising members of parliament, artists, journalists, and professional city men. Several toasts and speeches were made during the course of the evening, and all passed over agreeably.

On Saturday morning a party of thirty gentlemen visited the new India Office, accompanied by Sir Digby Wyatt. The council room and the Secretary of State's room were examined, and afterwards the India Museum. This short morning meeting, of about two hours' duration, terminated at twelve o'clock, and ended the programme of the Architectural Conference of 1872.

IRISH CIVIL SERVICE BUILDING SOCIETY.

THE seventh annual general meeting of this society was held on Saturday, at the rooms of the Royal Institute of the Architects of Ireland, Great Brunswick-street.

JAMES H. OWEN, Esq., M.A., in the chair.

The annual report of the directors having been read by the Secretary,

The chairman said it was his pleasing duty again to welcome to the annual general meeting under circumstances similar to those that attended all their meetings from the beginning—namely, that of continued successful extension of the business of the society. He proposed to move formally four resolutions, the first being the reception of the report, and the other three referring to several proposed alterations in the rules. There was one

matter on which it was desirable that he should make a few observations. During the last eighteen months a Royal Commission had been making inquiries in the three kingdoms with reference to Friendly and Benefit Societies. Their sitting in Dublin was heralded by the sending over of the assistant commissioner, Mr. Daniell, who, whilst lauding the society and some of its officers to an extent that to some of their minds seemed extravagant praises, made very serious charges against them, which had been repeated by a local journal, the IRISH BUILDER, and it was desirable that the directors should explain to the shareholders the causes which led them to take the steps which were the grounds of that condemnation, and to justify themselves in taking these steps. The charge made against the society was, that by closing its share list, it had practically excluded the poor man from all the advantages of the society. The society was led to close its share list from the circumstance that funds were accumulating in their hands faster than they could use them. For months together they were having large credits to their balance in the bank, and the usual rate of profit paid on their shares was imperilled. So long as they held out to anyone who chose to avail of it the opportunity of taking shares at par, which should yield $7\frac{1}{2}$ per cent. dividend, they were sure to be inundated with capital. It became, then, the duty of the directors to restrict the capital to such an amount as they were able beneficially to use. If they had gone on issuing shares *ad libitum* and receiving any amount of capital that was offered, in place of paying a bonus of 3 per cent., they would not be able to pay 1 per cent., if so much. But though the directors could not in prudence hold out this facility to the public at large, it was still open to any man who desired to avail himself of the advantage of acquiring a residence to participate in that advantage. That was proved by the fact that they had never at any time refused an application for a loan which they were able in prudence to grant, and so long as they were in that position he thought it was a most unfair charge to say that they were not fulfilling the proper functions of a building society, and not offering to the artisan classes the advantages which a building society affords. That one advantage of having a savings' bank they had been obliged to close, and it had been seriously considered by the board to put forward a new form of deposit scheme, by which they would receive deposits from persons not able to make deposits in sums of £10 as the minimum in small sums at intervals, and to issue pass-books—in short, to institute a Civil Service Savings' Bank, making the rate of interest probably 4 per cent. instead of 2½, which was usually given by ordinary savings banks, and in that way they would do all that they were called on to perform for the public at large. By the closing of the share list, shares not being procurable at par by simple subscription, were necessarily procured by means of transfer, and any person conversant with the matter knew that these shares now were bringing a premium at an average of about £3 each—£11 to £12 on the £100 share, and at that rate to pay a premium of only £12 upon capital which had never paid less than 7½, was uncommonly good buying. Whilst the directors acted prudently in closing the share list at the time, the period had now come when the share list should be reopened; and a circular would be issued announcing that it was necessary to increase the capital of the society in the proportion of one-fifth of new capital, as compared with the old, and each shareholder would have the option of taking a proportion of the new capital, based upon the amount of the old capital which he holds. There was a proposal to add the small balance of £57 to the reserve fund, making it £571. They did not want a reserve fund in the ordinary sense. The transactions of the company did not involve any risk, but it was desirable to be in a position, in the event of any unforeseen circumstances arising, of tak-

ing from the reserve fund the amount to make up for dividend the deficiency of any particular year. Last year the board received the power of borrowing up to the value of one-fourth of what was due to the society on their various annuities. That limit was too narrow, and they now asked to have it extended to one-third. Their receipts this year had exceeded by more than 30 per cent. the receipts of last year. This was a remarkable fact, when they remembered that they were receiving little or nothing upon new shares, the receipts being almost entirely upon repayments and deposits. The chairman then explained some proposed alterations in rules, so as to abolish the unnecessary attendance of two directors for two hours on a certain day in the week to receive subscriptions, and to enable the directors to enter on transactions for loans for shorter periods than from five to fifteen years with persons who would repay the amount in a lump at the end, paying the usual interest for the loan. He moved the adoption of the report, and that the balance of £64 be added to the reserve fund.

Mr. Hardinge seconded the resolution, which was adopted.

It was resolved, in reference to the taking of deposits, to substitute in the rule referring thereto, "one-third" for "one-fourth."

A resolution was submitted to add to Rule 83, as to the period for which loans are issued, "and for periods under five years, at such rates and on such conditions as the board may from time to time appoint."

A proposal by Mr. Lanyon to grant power to the board to issue large loans for lengthened periods, making arrangements as to rates in accordance with the circumstance of individual cases, was, after a short discussion, rejected by a majority.

The resolution submitted by the chairman was adopted.

Some verbal alterations in the rules were agreed to, with the object of allowing the directors more time at their command for the weekly audit of the books.

Mr. B. Banks moved the re-election of the outgoing directors, Messrs. J. H. Owen and Edmond Doherty.

Mr. Brady, in seconding the resolution, which was unanimously adopted, bore testimony to the zeal and energy of every member of the board for a long time. No two men, he said, could work more earnestly than Mr. Owen and Mr. Doherty.

On the motion of Mr. Brogden, the auditors, Messrs. H. M. Barton and R. F. Young, were also re-elected.

Mr. Kennedy referred to the unexampled prosperity of the society. The public confidence in it was shown by the fact that £4,315 8s. had been deposited with them last year. That success had been mainly due to the directors, the remuneration to whom he moved should be increased from £400 for eight directors to £500.

Mr. B. Mullen seconded the resolution, which was carried by a large majority.

On the motion of Mr. Banks, a vote of thanks was accorded to the secretary and the other officers.

Mr. Brogan and other members thought they should give the secretary something more substantial than a vote of thanks.

The chairman said he was happy to be able to say that that proposition had been anticipated by the board.

Mr. Charles Granby Burke, having taken the second chair, a warm vote of thanks to Mr. Owen terminated the proceedings.

[In consequence of the closeness of the date of meeting of the above society to that of our publication, we are obliged to postpone until next issue our observations as to the reference made to us by the chairman, and further as to the working of "Benefit Building Societies." We would in the meantime call the attention of our readers to a letter which we received a few days since, and which we print on page 201, with some prefatory remarks.—ED. I. B.]

HOME AND FOREIGN NOTES.

The church of St. Luke's, Cork, being inadequate to meet the requirements of its increasing population, it has been decided to enlarge it at a cost of £4,000. The building committee invited three local architects to compete, namely, Messrs. William Atkins, Richard R. Brash, and William H. Hill. Mr. Brash having declined to enter into the competition, the choice of the committee has fallen upon Mr. Thomas Drew, of Dublin, who has signified his intention of responding to the invitation of the building committee.

THE HEALTH OF THE CITY.—The following is the report of the medical officer of health for the four weeks ending July 6, 1872:—"The mortality was high, the Registrar-General having recorded 638 deaths, against 624 during the preceding month, and 444 during the corresponding month of last year. The rate was, therefore, 1 in 385, and in other cities was as follows:—London and suburbs, 1 in 704; Central London, 1 in 627; Liverpool, 1 in 533; Glasgow, 1 in 468; Belfast, 1 in 559; Limerick, 1 in 618; and Waterford, 1 in 642. The rates in the seven districts were—Summer Hill, 1 in 732; Coleraine-street, 1 in 593; Blackhall-street, 1 in 263 (or including workhouse deaths, 1 in 531); Meath-street, 1 in 266 (or including workhouse deaths, 1 in 369); High-street, 1 in 692; Peter-street, 1 in 406; and Grand Canal-street, 1 in 864. Zymotic disease caused 187 deaths, including only 12 by fever, and 56 cases of that disease were admitted from city dwellings into the Hardwicke, Sir Patrick Dun's, and Cork-street Hospitals, especially along the Poddle and Bradogue rivers, New-row South, and East Arran-street. The type of the disease was enteric, which depends on bad sewerage. Diarrhoea, which usually accompanies this disease caused only 7 deaths. Both are, therefore, far below the average. Smallpox, caused 90 deaths, against 138 in the previous month, and 208 and 211 during May and April, respectively. Many of the deaths during last month were suburban cases received into the city hospitals, and several should be referred to previous months. The cases from city dwellings in the above hospitals were 78, the districts of Nicholas-street, Townsend-street, and Little Mary-street, being most infected. There has been, therefore, a striking decrease of the epidemic, especially within the past week. Measles was unusually fatal, having destroyed 37 children. Consumption caused 64 and bronchitis 53 deaths. The premises in which catching diseases were reported to have arisen have been visited by the sanitary sergeants in their respective districts, and disinfected by the special officers.

LESSONS FROM A BRICK.—An Austrian *savant* has discovered, by means of a microscope, in a brick taken from the pyramid of Dashour, many interesting particulars connected with the life of the ancient Egyptians. The brick itself is made of mud of the Nile, chopped straw, and sand, thus confirming what the Bible and Herodotus has handed to us as to the Egyptian method of brick-making. Besides these materials, the microscope has brought other things to light,—the *debris* of river-shells, of fish, and of insects, seeds of wild and cultivated flowers, corn and barley, the field-pea, and the common flax, cultivated probably both for food and textile purposes, and the radish, with many others known to science. There were also manufactured products, such as fragments of tiles and pottery, and even small pieces of ostrich made of flax and sheep's wool.—*Builder*.

HOUSES FROM NORWAY.—A twenty-roomed house, complete with grates, stoves, and fittings, has just been brought by ship to Exmouth, for transmission by rail to North Tawton (North Devon). The house was built in Norway for a gentleman at North Tawton named Vicarry. It is mostly built of wood, and, it is said, can easily be taken to pieces and put up again in any locality desired. The house will be unshipped at Exmouth, and conveyed over the London and South Western line to its destination. Great interest is being taken in this novel cargo alike by employer and employed in the building trade. Until, however, the house is put up and inhabited any opinion upon the stability or suitability of the structure must be withheld. It should be stated that men have been brought from Norway to put it up, so that the owner will be altogether independent of home labour.

HOW AN M.P.'S INFLUENCE WAS GOT.—A railway was to run within sight of the country house of a well-known man of influence. He was upon the Parliamentary committee, and determined that the Bill should not pass unless he got his compensation, some thousand pounds, for residential injury. The rest of the committee knew

this, but were not honest enough to thwart him. The compensation was agreed to, and the Bill allowed to pass. Next year, being stronger, the directors came to Parliament for amendments, and, among others, for a deviation into tunnel off the claimant's land, and, of course, out of sight of his house. "Well," he said, "I do not care. Of course, you pay me my compensation." "No," they rejoined; "we do not injure you, and shall not compensate." "You are a pack of rogues," said he. "You know very well that the money was not to cover an injury, but to buy off my parliamentary influence." And no doubt he spoke the truth, though rather more plainly than most men would have had the assurance to do.—*Builder*.

TENDERS.

For improvements at Windsor House, Cork, for Captain Ducrot, J.P., Mr. Richard R. Brash, architect:—

William Barnard,	£2,280
Richard Evans,	1,190
Francis W. Jackson,	1,086

For the erection of buildings for the Dublin Whiskey Distillery Company (Limited), at Clonliffe, Dublin. Mr. C. Geoghegan, architect. Quantities supplied:—

Hammond	£35,860	0	0
Moyers	33,326	0	4
Collen, Brothers	33,155	16	10
Bolton	32,821	0	0
Wardrop and Sons (accepted)	29,268	7	0

INSOLVENTS.

William Loughrey, late of Blackhall-place, city of Dublin, builder's assistant; previously of Hardwicke-street in said city, not in any business; previously of Athlone, Co. Roscommon, builder and contractor; formerly of Sandymount, Co. Dublin, builder's assistant.

TO CORRESPONDENTS.

BUILDING SOCIETIES.—In reply to two or three enquiries, it will be sufficient to state that their wishes will be attended to as far as possible.

FINE ARTS.—Many of the paintings executed by Irish artists at the close of the last century and in the beginning of the present, are in the possession of the titled families of England.

PUBLIC LIBRARIES.—The Corporation of Dublin is not a literary corporation, but it is literally a talking shop, where tall talk and bad talk is ventilated to any amount. Open a library indeed for the benefit of the public! The leaders of personal opinion there would rather open the people's pockets.

THE PARLIAMENT HOUSE.—The portico facing College-street was designed by James Gandon, the architect of the Custom House. If people would only look, they would ascertain that the original is in the Ionic, and Gandon's beautiful though inappropriate design belongs to the Corinthian Order—"an order of the House of Lords, and be hanged to them," as the great architect said.

SHOCK-ALLEY THEATRE.—It stood somewhere near the site of St. Michael and John's Catholic Church, and took its name, of course, from the original name of the locality.

IRISH EXHIBITS.—We have stated already that there are several excellent. In good time there will be a notice of them. As the Exhibition is to be permanent, the interest will not be a passing one.

P. M., Abbey-leix.—The clipping you have forwarded is from the *Leinster Express*. That journal extracted it from ours of the 1st inst. We will presume that it was through oversight it was not acknowledged as being a portion of a series of papers at present being written for us by Richard R. Brash, Esq., Cork, and which, we may take this opportunity of stating, it is intended shall hereafter appear in book form.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filled with vestas, at one penny. Any Tobacconist, Grocer, Chemist, or Chandler will supply it.

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We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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NOTICE.—Atchley's Illustrated Price Book for 1872 can be sent from the IRISH BUILDER Office, post free, on receipt of 4s. in stamps.

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The Irish Builder.

VOL. XIV.—No. 303.

Civic Rule and Civic Rulers.



T needs no octogenarian or even sexagenarian experience to be fully versed in

the sinuosities of the corporate rule of this city during the last thirty years, which represents the period since the interests of Dublin were confided to the care of a so-called "Reformed Corporation." Princes and monarchs have been dethroned, sceptres smashed, empires tumbled, parliamentary parties relegated to limbo, and the *vox populi* lifted to a higher standard, as an expression of public opinion for good or evil. Municipal institutions everywhere, though they have lost some of their ancient privileges, have been entrusted with newer power, but, save in a few instances, these powers

have been grossly abused and diverted for the vilest party and personal ends. From a practical knowledge, gained by an intercourse and location in the principal towns and cities in Great Britain, extending over several years, we can safely assert that this city has been cursed, and branded by a combination of the worst kind of men and the most insidious system of measures. We have had for the last twenty years almost unlimited taxation schemes, but the improvements which they were to represent were few and far between. Beginning even with the mayoralty of O'Connell: his year of office represents nothing of importance accomplished for the sanitary and social elevation of this city and its inhabitants. The chief magistracy in that year (1841) was a new toy in the hands of a new party, and the office and its duties were fiddled and played with as if it was a box of children's playthings. The doll was kissed, caressed, and nursed, and alternately had its eyes punched in and picked out, its clothes torn off, and its legs and arms dislocated to please the possessor and his immediate successors; but poor dolly—"dear, dirty, Dublin,"—at the end of each year's debauch and revel, was left a slattern and a draggle-tail, and an object of pity and scorn. Crowding years into hours (for the story is still as ever the same), there is little change observable.

The question resolves itself into a nutshell. Dublin can never be ruled by her present local representatives, or by those who will imitate them. The day is gone by for municipal councils to be converted into political clubs and sectarian cliques, and every effort made in the future to utilize them as such must be openly denounced, the actors as well

as the system meeting with deserved opprobrium. There are many corporations and local boards throughout Great Britain whose members would put their foot on the insects who would attempt to steal a march and lay their larva for a hybernation of political or sectarian animalculæ. This policy of stamping out the loathsome tapeworms must also be adopted in Dublin, if any purity of representation is to be expected. Our standard bears the common weal, as journalists, irrespective of sect or party, and we will preach a merciless crusade and crucifixion against all evil doers and public jobbers whom we find acting, like Janus, with a smack of truth on one cheek and an Iscariot scowl of deception on the other.

We desire to see this city elevated, and no longer a reproach to our countrymen and our councils. We have striven hard, and will still strive, to lift it up out of the cesspool in which it seethes; and, while helping to purify the current of public opinion, we will endeavour to cleanse the tributaries of its supply, from source to outfall. What honest man among us is there who has ever entered the City Hall during the transaction of what ought to be important public business, but has come out with a feeling of disgust, to breathe the less impregnated air without, and rid himself of the poison he had caught up, and to ruminate over the miracle of his perhaps lucky escape?

Evil communications assuredly corrupt good morals and manners, and if a man points to the company he keeps, his character can be photographed in an instant. Citizens or strangers can see at a glance the disgraceful unsanitary state of our city, its wretchedly-paved streets, its neglected and exclusive squares, its putrid river, and the cause of all—its gambling corporation. Plague and pestilence may come and go, but corruption and jobbery increase. Lord mayors and aldermen may die, but those who bury them with honour (?) still clutch at their surrendered mace and insignia by dishonourable shifts. Town councillors and official servants may cushion reports, and lie to their hearts' content, but still the public money is voted for their superannuation, and the hoary sinners are superseded for their own satisfaction and those who support them. Ossa is heaped upon Pelion, filth is piled upon filth, and a universal nuisance reigns, and nothing short of a Nemesis sweeping with a lightning wrath can choke the scoundrelism that disgraces Dublin in incarnate shape.

If we write in strong language, we feel strongly and acutely the condition of our city and our citizens. Lip-service is weak, but there is a powerful external sympathy yet alive in our midst that needs only to be properly touched to waken up. Men who will sympathise with us are in earnest, and by earnestness and dogged persistence we will yet conquer back the good name that this city has lost since she surrendered herself to false guides, and, turning from the right path, fell among thieves and robbers.

THE LABOUR AND WAGES MOVEMENT.

A GENERAL disturbance of the present condition of industrial labour has taken place in all branches of trade, whether belonging to skilled labour or unskilled. Many causes may be adduced in proof of the effects observable. The workmen engaged in mecha-

nical employment believe, and have believed for many years, that they have not received fair value for their labour. They point to the large return in the shape of profits accruing to large capitalists year by year, and to the huge fortunes amassed, while the position of the workmen remains unchanged, notwithstanding that the prices of the necessaries of life are doubled, and rents and taxes have in many cases tripled.

The strike of the London trades will go far to arrive at a solution of the vexed question; and though the workmen may not, or most likely will not, obtain their desired wishes, yet an advance will be made which will afford much information for drawing conclusions. The shortening of the hours of labour, if consistent with the laws that regulate supply and demand, cannot be objected to. For our own part, we are, and have always been, advocates for facilities that will lead to the elevation of the working classes. We have advocated a fair day's wages for a fair day's work; on the principle that a fair day's work should be performed for the wages paid or demanded. The interests of men and masters are inseparable; they cannot be separated without causing a revolution in sympathy, in value, and respect, and a serious disturbance of conditions necessary to that unity which it is all important to preserve.

There is one serious question which has an important bearing on the labour movement at present, and that is the food question. Year by year the prices of provisions are increasing enormously, and altogether out of proportion with the wages received by either skilled workman or mere labourer. Butchers' meat and vegetables, and even fish, as a constancy, are altogether out of the reach of working people; and to add to the difficulty of living, rents are increasing, though the accommodation is in nowise improving. Workmen's homes in this country have improved very little, and no amount of education on the part of the rising generation can give an impulse to a practical improvement unless the remuneration for labour is increased. The will to do a thing is not sufficient; the power to do it is what is required. The working classes have been often lectured, and indeed in some particulars they require to be lectured too, for their own profit. On the other hand, we must admit they receive sometimes more blame than they merit about their earnings and spendings.

The blame that is often left at the doors of the artisans of this city by strict justice should be apportioned to our local rulers. We cannot expect that the homes and tenements of our working classes should be gilded and carpeted, or even fashionable, though they might be more comfortable, but we do expect that they ought to be more healthy. If the Corporate authorities do not do their regularly appointed duties, the masses may be credited with excuses for not fulfilling their part to some extent. Cleanliness, however, should be insisted upon wherever water is in abundance, let the wages question be whatever it may. Health and strength are all essential, but to preserve both, means are absolutely required. We, therefore, in view of the present phase of the labour and capital question, desire to see a fair settlement—a shortening of the hours of labour wherever possible, and an increase of wages to the really deserving and competent, among all branches of industrial pursuits.

THE ROCK OF CASHEL.

WE are informed that the historic Rock of Cashel has been assigned by the Commissioners of Church Temporalities to the Commissioners of Public Works, pursuant to the provisions of the Irish Church Act. The Board of Works will therefore, for the future, have the guardianship of this splendid ruin; and, to enable them to preserve it from further decay, a large sum of money (amounting, it is said, to £7,000) has been paid to them by the Commissioners of Church Temporalities. The vast ruin and surrounding grounds were visited last week by Alexander McClinton, Esq., and James H. Owen, Esq., solicitor and architect of Public Works, who made a minute and careful examination, with a view to the commencement of the necessary works. It is hoped that by repairing the several flights of stone steps, and by placing iron railings round the elevated parts of the buildings, visitors will find it in future easier and less dangerous to inspect it. We trust that the necessary and long-deferred works will be at once commenced, and that this historic rock will remain for ages extant.

PROPOSED PUBLIC HEALTH BILL.*

THE three features which distinguish the measure of legislation now under discussion in the House of Commons, viz., that the State shall pay half the salaries of the medical officers of health and of the sanitary inspectors, and shall, before the appointment or dismissal of any officer, inquire into his merits or demerits, and that the State shall advance money to local authorities for the construction of those works required by the necessities of the public health at a low rate of interest, are all sound in principle, and the measure, taken as a whole, has but this defect, that it proposes to pay only half the salaries of these officers. To begin with, the effect of their work is not local, but national. It is their office to prevent disease, and chiefly so in the poorer districts. Disease prevented amongst the labouring population means an increase of national wealth, independently of the benefits accruing to the individual by the absence of sickness. When such works and regulations are devised to rid the atmosphere in which a labouring population live of those foul emanations which induce low fevers and other forms of illness, the people go merrily to their work; they live more contentedly at home; there is less crime and less pauperism. To reduce the amount of crime and pauperism is a national work. The sanitary inspector and the medical officer, taking them together, are the prime movers in accomplishing this desirable end. Render them independent of local influence, and you take the first step towards a real improvement of the public health. Now, a long acquaintance with local boards, town councils, and other local sanitary authorities has made us aware that the question of salary of a public officer, whether it be much or little, is made the ground of factious contention, quite irrespective of either the merits of the officer or the amount of his salary. It is not the amount that troubles them; but the payment of any salary at all; and once the appointment made and a salary fixed upon, it remains a standing bone of contention over which factions try to get better of each other, out of pure resentment and personal opposition which arise from causes wholly independent of the incident which gives them the opportunity to quarrel. That this contention should be obliged to be made of the actions of local boards as at present constituted is grievous, but it is only too true. And what are the public interests over which they contend? These, probably: whether the rate required shall be 1½d. in the pound or whether it shall be 2d., for the supervision of the conditions upon which the health and welfare of the population chiefly

depend. Or, to put the calculation in another form, whether the charge for that supervision shall be 1s. 6d. per house per annum or whether it shall be 2s.

The salaries of the sanitary inspector and the medical officer, taken together form no real burden upon the local rates at all commensurate with the benefits received, but they do afford opportunities to the local authorities to wrangle amongst themselves, and keep up perpetual ill-will. Therefore, we say, let the local authorities be relieved altogether of this disagreeable situation, and let these officers be wholly officers of the State. This, of course, would lead to the appointment of those officers solely by the Local Government Board. So much the better. The sanitary inspector is the right-hand of the medical officer. He is the fore-runner of the actions of the other. Together they perform a national work. They should have no local interests whatever. They should not depend, even partially, for their appointment, and for their continuance in office, upon the favour of the inhabitants amongst whom they administer the sanitary law; for they bring wealth into the national exchequer just as well as revenue officers do; and surely the health of a people is as much worthy of the protection of the State by the payment of persons to do that duty as is the payment of an army and navy to protect their lives and property. Indeed, without the one the other is of but little value.

Might it be said that this would be an interference by the Government with local interests? Well, it is admitted that it would be an interference, but not with strictly local interests. And it is a necessary interference. The favour with which even this proposed half-measure of the Government is received by both sides of the House of the people's representatives, and the popularity of the measure in the country generally, show how much such interference is desired; and we feel well convinced that the measure would be of greater popularity if it were made complete by the appointment and pay of the two sanitary officers in question being left solely in the hands of Government. If the inhabitants of any locality, in council assembled, should have any real ground of complaint of the actions of these officers, nothing can be easier than to appeal to the Local Government Board to cause an enquiry to be made into the merits of their complaint, and nothing easier for that department of the State to do than to dismiss an officer and replace him. The department must feel it to be a part of its public duty to take the responsibility of these details, in order to make the interference of the State in this great national affair of any real use and benefit to the people. These things which affect the health of the people have been managed solely by local authorities now long enough to have proved the weakness of men, and their ignorance of the true interests of even their own locality; and the time has come when an improvement in this respect must be made. Then let that improvement be made in accordance with the knowledge we have gained, and thoroughly, as with confidence in ourselves. To do this much cannot, surely, be temerity. After an accumulation of facts which afford a sure basis upon which to act, a bold stroke saves a deal of confusion thereafter, and salves the wound from which we suffer.

There are reasons why this bill should be passed this session, notwithstanding that it cannot be said to be a complete Public Health Bill, and confessedly so by its promoters. Nevertheless, it is one step on the line of policy that we must quickly pursue, if we would avert alarming dangers to the State. We, therefore, confine our remarks at present to the few enactments of the proposed measure.

It will tend to preserve the true line that we must pursue if we begin with a true appreciation of the qualities which the two officers named should possess. In the medical officer (which, by the bye, is a misnomer, for he should be called the chief health officer) we want not a physician, but a physicist and a

chymist. To cure persons of disease they may have contracted is not his office,—that is the business of physicians; his sole work is to prevent disease. If he is well acquainted with the conditions produced in men, women, and children by living upon a damp soil; if he knows by examination whether a soil is too damp or not to satisfy the conditions of health; if he knows what is the smallest space of a sleeping apartment that satisfies the same conditions; if he can analyse the atmosphere, and ascertain with tolerable certainty what is in it, and, knowing what is in it, whether and to what extent it is injurious to health; if, on finding a deleterious atmosphere, he can point to the cause of it; if he has given his attention to the study of these things rather than to the cure of disease—he shows the first signs of qualification for the office of chief health officer.

Then what do we want in the sanitary inspector? We want less scientific knowledge and more industry. This man must have a conviction that the work he is doing is no ordinary work, and he has almost to create in the public mind an appreciation of what his work consists of; for it is certain that a great many of the people he meets with do not see at present what his work really consists of; yet the last thing he must do is to do nothing because he is not appreciated. His faith in the importance and usefulness of the unpleasant work he has to do must spring from conviction. He is to take one straight course, and that is, to carry out the instructions of the chief health officer without fear or favour of the inhabitants amongst whom he works, and yet, of course, civilly. He sees whether the houses are properly supplied with water, and takes doubtful samples to the chief officer for analysis. He gives notices to whom it may concern to remove nuisances. He disinfects whatever the chief officer orders to be disinfected. The scavengers are under his charge. He reports the want of drainage where there may be none, and the defects of existing drains. If a house-drain is not properly ventilated according to rules laid down for his guidance, he reports that, and he will probably find this to be the state of things in nearly every house-drain.

He is to lead people in his intercourse with them on their own premises, to get out of dirty habits into cleanly ones. He is to be no tyrant or jack-in-office, but a counsellor of the ignorant.

The whole result of his work may never be known, but if it is faithfully performed, one outward sign will be that the people will look upon his inspections, not as meddling with their rights or liberty, but as work that is tangibly useful and beneficial to themselves.

The condition of the labouring population must be raised, by no violent means whatever, but by their own efforts. As long as their homes are dirty, from whatever cause, and they are sick and overcrowded, they will make no effort. They do not know what to do even when they are willing. But the sanitary inspector may do many things to direct them to study whatever common things of interest may be about them, and there is always something or other of interest everywhere. The more general knowledge he has then, providing it be sound, the better will he fulfil his office. The sanitary inspectors of the country may be looked to to make a practical beginning of that which must be done,—the elevation of the condition of the labouring population. They, therefore, deserve the utmost consideration and encouragement that the State can give them.

The New Distillery Works, Jones's-road (the tenders for which we gave in our last issue) have been energetically commenced by the contractors Messrs. Wardrop and Son, Great Brunswick-street. We omitted to state in our last issue that the quantities were prepared by Mr. James M'D. Bermingham, who was specially appointed for that purpose.

* From the Builder.

MARYBOROUGH COURT-HOUSE.

THE following is a portion of the proceedings of the Grand Jury of the Queen's County at their meeting last week, as reported in the local journal, the *Leinster Express* :—

Major Carden brought under the notice of the grand jury the bad state of the whole court-house from damp. He thought a committee should be appointed to co-operate with the county surveyor in carrying out arrangements to heat the court-house.

Mr. Franks seconded the motion.

Mr. Townsend (county surveyor) said a presentment had been passed for this purpose, and tenders laid before the committee for opening tenders, but the tenders were all found to be informal. The grand jury, however, if they desired to have the work done, could order him to carry it out. The only question they would have to consider was, would they have hot water or hot air.

Mr. Kemmis produced the tenders which had been laid before the committee, and it appeared the sums for which it was proposed to do the work varied from £125 to £175. The committee made the following report :—“We report that the tenders for heating the court-house were all informal. We could not, therefore, accept either of them.”

It was finally proposed by Mr. Cosby, seconded by Mr. Franks, and carried—“That Sir Allen Walsh, Bart., R. G. Cosby, and T. Kemmis, Esqrs., be a committee to co-operate with the county surveyor in the carrying out a presentment passed at this assizes for heating the county court, Maryborough, not to exceed £160.”

Mr. Cosby observed that they had now taken measures to prevent dampness in the court-house, but this would not be entirely remedied until the water from the spring under the building was prevented flowing into the passage under the dock.

Mr. Townsend said this could be done, but at great expense, and by endangering the foundations as well as polluting the well. The object Mr. Cosby had in view could be carried out in a more simple manner by putting down a force pump, which would take off all the water from the passage.

The high sheriff said that last assizes there was water in that passage 15 inches deep.

Mr. Cosby proposed the following resolution, which was seconded by Captain Morton, and carried :—“That the county surveyor be authorised to bring before the next county-at-large road sessions plans and estimates for carrying off the water now standing under the dock in the crown court.”

A discussion then took place on the contemplated alterations in the record court, as repeatedly suggested by the Lord Chief Justice.

The high sheriff and Mr. Townsend stated the substance of the interviews they had with the Lord Chief Justice at last and previous assizes.

Mr. Cosby proposed, Mr. Despard seconded, and it was carried—“That the present record court does not require to be re-modelled, and that the county surveyor be authorised to supply cushions and backs for the counsels' and barristers' seats.”

On Wednesday, when the Right Hon. the Lord Chief Justice had taken his seat in the record court, he directed that the county surveyor should be sent for. When Mr. Townsend came into court,

His lordship called attention to the wretched condition and arrangements observable in the court, and pointed out that by the 69th section of the Grand Jury Act it shall be lawful for the grand jury to present such sums of money as may be necessary for enlarging and fitting the court of justice. The real object his lordship had in view was the proper administration of justice; but with all respect for the grand jury he should repeat that this court always reminded him of an old barn in a back lane. The grand jury had supplied backs to the jurors' seats, but no cushions. The grand jury themselves would like to sit on cushions,

and the jurors in that court were equally entitled to be accommodated properly. The whole building was a wretched one.

Mr. Townsend informed his lordship that the grand jury had re-considered the matter, and would carry out his lordship's suggestions.

THE SANITARY CONDITION OF SKERRIES.

FEW would believe that this delightful watering-place, so picturesquely situated, and within such easy distance of the metropolis and of populous Drogheda respectively, has been for a lengthened period so deficient in sanitary regards—in sewerage, and supply of pure and wholesome water—as to call forth the interference of the authorities and their peremptory directions for the remedying of defects, which should inevitably result in evils incalculable to the inhabitants of the town. We learn with pleasure that all the open wells, which were more nuisances than acquisitions, are to be dispensed with, and that durable and approved pattern iron pumps (ten in number), furnished with drinking-cups and chains and troughs, are to be substituted. Likewise, that the most complete arrangements are being provided, by an improved and extensive system of sewers and paved channels for the carrying off to the sea quantities of fetid, stagnant water, accumulating at periods, and of the surface water which in rainy weather floods many portions of the town and the adjoining dwellings. These works (and others recently executed, and said to be very effectual) are in charge of the local sanitary committee of the Balrothery Union, and were designed and specified for by the efficient architect and engineer to the board, Mr. J. J. Lyons, of 25 Westmoreland-street. We trust that his skilled services will be extended to other localities within the Union boundary.

BOOKS RECEIVED.

Life and Labours of Mr. Thomas Brassey. London: Bell and Daldy.

WE have not had sufficient leisure to prepare a review of this volume in time for our present issue. We hope to do it justice in our next.

The Journal of the Royal Historical and Archaeological Association of Ireland. Vol. II., No. 10, for April, 1872.

THE principal papers in this part are, “The History of the Kilkenny Canal,” by Patrick Watters, A.M., in which is contained some matters of interest to engineers. It is accompanied by a map and plan, reduced by the photolithographic process from the original in Journal of Irish House of Commons, 1761. Another paper is from the pen of Mr. R. R. Rrash, M.R.I.A., and is entitled, “The Sculptured Crosses of Ireland, what we learn from them.”

The Mining Magazine and Review for July contains the usual amount of articles peculiar to the nature of such a journal.

Statements relating to the Home and Foreign Trade of the Dominion of Canada, &c. Montreal: Gazette Printing House. 1872.

THIS is the ninth in the annual series of publications on Trade and Commerce presented to the Board of Trade and the Committee of Management of the Corn Exchange Association, by Mr. Wm. J. Patterson, Secretary to the Board of Trade. The great bulk of this volume is, we may here remark, composed of tables shewing the state of trade and the produce of the country for a number

of years—information which is of great value to many. Mr. Patterson tells us that arrangements are to be made for the reception and protection of passengers *en route* for the interior, which can hardly fail to exert a favourable influence in the future. The public works soon to be commenced in Canada,—including the enlargement of the canals, construction of new ones, improvement of inland navigation generally, building of the Pacific and other railways, &c., involving the disbursement of millions upon millions of dollars within the next ten years,—will be the great attraction for the toiling population in Great Britain, and in countries on the Continent of Europe.

THE IRISH POMPEII.

A CORRESPONDENT of a local contemporary, writing from Rutland Island, Co. Donegal, a few days ago, says that—

Few outside the County Donegal have, perhaps, ever heard of this island of sand hills and buried and unburied ruins. Yet, nearly a hundred years ago it created a great sensation in Ireland, and was regarded in its way as a kind of El Dorado. About 1780, herrings set in there in enormous quantities—a millionth part of them could not be consumed by the surrounding country. The means of cure were so inadequate that vast quantities were spread over the fields for miles around for manure.

In 1783 a company was formed to reap the wonderful harvest of the sea, with a capital of £70,000. The Irish Parliament gave a grant towards the object.

£40,000, it is said, was laid out in buildings, which consisted of a military barrack, a custom-house, a sail and net factory, and a number of houses in streets for the clerks, artisans, and fishermen. Wakefield, in his political and statistical history of Ireland, relates what a wonderful scene of industry this formerly barren and deserted island became. In one year the company realized £135,000. The island was called Rutland, in compliment to the then Viceroy, who evinced a deep interest in the undertaking.

Unfortunately, however, like nearly all other great influxes of fish to the Irish coast, the herrings after a few years totally abandoned Donegal. Various reasons were assigned. Some said they were frightened by the blasting of granite rocks on the cliffs; others that the shifting sands rendered that part of the coast unfit to deposit their spawn. At all events they went, and with them Rutland naturally went down. To complete the disaster, great storms arose; the sand broke from the back of the island, and covered up nearly all the buildings, so that to-day two entire streets have sand many feet over them, and the other buildings are more or less buried in the sand.

The houses above the ground are inhabited by the coastguards and the families of owners and crews of coasting smacks. All signs of fishing industry are gone. When the Inspector of Fisheries, Mr. Blake, visited the island to-day, he could not find a single fisherman. A little judicious aid in the way of loans would, however, go a great way towards again making Rutland a fishing station, as herrings and other fish have begun of late years to show in quantities.

At Rospeacon, to the north of Rutland, a similar sand-storm catastrophe occurred.

The beautiful house, pleasure grounds, and deer park of Lord Boyne, were about the same period completely covered over by sand.

A great deal more might be detailed concerning the above incidents, and the action taken by the Irish Parliament at the end of the last century. We will probably in our next or succeeding issue enter into some further details concerning Rutland Island and the surrounding coast. The Irish fishery question is an almost vital one, and on its development depends much of the future prosperity of this country.

NOTES ON THE ECCLESIASTICAL ARCHITECTURE OF IRELAND.

BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A., SCOT.

DYSERT.

DYSERT is a parish situated in the barony of Inchiquin, County of Clare, six miles north of Ennis on the road to Corofin. There are many remarkable localities in Ireland of this name, and which are usually identified with ecclesiastical remains; it is a loan word from the Latin, *desertum*, and is applied in much the same sense, to designate a lonely, sequestered place, and was probably applied to hermitages or anchoretical abodes in early Christian times. It is variously written, as Disert, Disert, Dysert, Desert. This locality was anciently known as Disert Fola and Disert O'Dea, in the denomination of *Ci-neal-Fermate*, in Thomond, and was the patrimony of the sept of the O'Deas.

The remains of the ancient church stand in its cemetery on the right-hand side of the public road; it consists of a nave and chancel, irregular on plan, and bearing evidence of many alterations, portions of the original structure appearing to be of considerable antiquity. The nave is 50 ft. 9 in. long, and for a length of 35 ft. 6 in. is 24 ft. wide; the remaining portion towards the west end being 26 ft. wide, as there is a break of 2 ft. in the south wall. Chancel is 25 ft. long by 20 ft. 9 in. broad. The east window is an early English triplet of three lancets, the centre being the highest, having plain chamfered mullions, and no labels either inside or outside. The chancel-arch is pointed, springing from square piers, which have impostes consisting of a square and chamfer. This arch is not in centre of the nave, though it is in the centre of the chancel; the same irregularity is observable in Cormac's Chapel at Cashel. In the east wall near the window is a rude double aumbrey; in the south wall is a semicircular-headed window-ope, 6 in. wide on the outside, 4 ft. 6 in. on the inside splays. A deeply-chamfered string-course runs round both nave and chancel at the level of roof, forming an internal cornice; this feature is to be seen at Kilnaboy, Coad, and other churches in this district. The masonry is of irregular character; most of the north wall of nave is built of large blocks of stone, hammer-dressed and closely-fitted, but not in regular courses; the rest is of rubble-work of a good description. About 15 ft. of the west end of the church is evidently an addition, as is also the chancel, in which the east window and arch are again later insertions. The masonry of the latter is very carefully executed, the arch-stones being accurately cut and closely jointed.

The most remarkable feature, however, of this church is its beautiful Romanesque doorway, which is placed in the south wall towards the west end. Its dimensions are 3 ft. 1 in. clear of inside jambs, and 6 ft. 6 in. wide from out to out of external pillars, and 5 ft. 2 in. high to springing of arch; it consists of four richly-sculptured rings, springing from an equal number of piers and pillars, having sculptured capitals and bases. The first order has a line of grotesque heads, human and animal, under a square and chamfered label; the second has a line of deeply-cut chevron blocks; the third a scalloped enrichment of curious design; the fourth a beaded moulding arranged in a zig-zag form, the ends curiously terminating in serpents' heads. There were one octagon and one circular pillar on each jamb, with two square piers, the surfaces of which were richly carved with a variety of ornaments, now much defaced; the capitals are also much damaged; the abaci consisting of a bold square and chamfer; the bells ornamented with grotesque animal heads, interlaced tracery, and other patterns; the bases have parabolic mouldings of an unusual form, and are enriched with animal sculptures. Upon the whole, this doorway is a very interesting one; the variety and arrangement of

its sculptured ornaments and its elegant proportions must have produced a very pleasing and beautiful effect, when originally finished and fresh from the hands of its sculptor. (See plate.)

In the nave is a grave-slab bearing the following inscription:—

"This Thombe was erected by Michael O'Dea of Dishert son of Connor Crone O'Dea the Second Day of May in the Yeare of our Lord 1684

Wherein was interred

Joan Dea Als Burke wife of the sd Michael O'Dea the eleventh of November the following. Est commune mori mors nulli parent Honori Debi lis et fortis venerunt ad funera mortis."

In the churchyard is a rude but ancient cross, about 3 ft. high above ground; the shaft is 13 in. by 4½ in.; the head is circular, with short arms. Near it I found the bowl of a font, square, and ornamented with a moulding round the lip and also where it joined the shaft, which latter is missing; it appears to be of a late mediæval type.

A short distance from the church on the roadside are the dismantled members of a fine sculptured cross, consisting of the base, shaft, and head. It measures 14 ft. 6 in. in height. The plinth measures 6 ft. across the front face; it is 9 in. in height, and has an offset of 6 in. all round. On this stands a sub-base 5 ft. wide on face at bottom, diminishing to 4 ft. 8 in. at top, and 2 ft. 4 in. high, with a large torus moulding on the angles. Upon this is the base, 4 ft. 3 in. wide at bottom, 2 ft. 9 in. at top, and 1 ft. 10 in. high. The shaft and head are in two pieces, and measure 9 ft. 6 in. in height. On the lower part of the shaft is the figure of a bishop habited in a long mantle, holding a plain crozier to his breast, and wearing a conical mitre; above this is a crucifixion, the feet of the figure not crossed, but parallel, as in the most ancient examples. The head at the reverse side is occupied by a cross formed of five diamond panels, surrounded by interlaced serpents and strap-work, and the sides filled with representations of grotesque animals and strap-work.

On the west side of base is a group of figures, two in the centre holding a crozier between them, a figure at the right side holding a crozier also, and one at the left, almost defaced. On the north side of base is an ornamental cross of pleasing design, and on the south a human figure surrounded by interlaced work. The east side is occupied by the following inscription:—"This cross was newly repaired by Michael O'Dea, son of Connor Crone O'Dea, in the year of 1683." This is the same person recorded in the inscription already given from a grave-slab in the nave of the church.

To the disgrace of the clergy and gentry of all denominations in the neighbourhood, this venerable and interesting monument was lying prostrate by the roadside when I visited it in 1855, and had been so for a number of years. I have reason to believe that it is still in the same state. Here also is a Holy Well, formerly in great repute, but now little regarded.

ROUND TOWER.

Within 7½ ft. of the north-west corner of the church stands a round tower of an unusual type, as it exhibits externally two storeys, the lower being 28 ft. high, above which is a bevelled offset of about 8 in., over which about 22 ft. of the upper part still remains, having a great breach at one side. The internal diameter is 10 ft. 2 in.; thickness of wall at ground level, 4 ft. 8 in.; external circumference, 61 ft. The doorway is at the east side; it is semicircular-headed, with sloping jambs; width at bottom, 3 ft.; at top, 2 ft. 10 in.; height to spring of arch, 4 ft. 6 in.; thickness of wall at sill, 4 ft. ½ in.; height of sill from ground, 13 ft. 3 in.; the doorway has an internal reveal of 5 in. by 3½ in. The masonry is of hammer-dressed rubble of good character, spawls being freely used. The upper portion has the appearance of a reconstruction, as it differs in the batter

very much from the lower storey; it is locally termed by the peasantry *Clogaun a Deeshurt*. As usual, they have a legend in connection with this tower, namely, that it once stood at Rath, a place about three-quarters of a mile distant, where are the remains of an ancient church dedicated to a female saint named by the peasantry Blaufugh; that St. Monalagh, envying Rath the distinction of possessing a Round Tower, came by night and stole it away; the theft being immediately discovered by her saintship of Rath, she pursued the clerical freebooter, who, being hard pressed, and encumbered very naturally by his booty, was compelled to drop it at Dysert, "where sure enough it is to this day." It is also stated that a Round Tower once stood at Rath, the base of which to the height of 8 or 10 ft. was in existence up to about 1838, when it was taken down to build the churchyard wall.

Mr. Marcus Keane, in his *Towers and Temples*, gives an illustration of a very curious sill-stone of a window at Rath, amongst the carvings on which is one of those indecent representations known as Shela-na-gigs. It is also singular that I found a similar representation over the doorway of the neighbouring church of Kilnaboy, of which I made a sketch. Such are also to be found on one side of the entrance doorway of the ancient church of White Island in Lough Erne, and over one of the windows of the old church at Ballyvourney, County Cork. Many others are known to exist. The subject is one of singular interest, and points unmistakably to a pagan cultus, a reverence of the powers of nature which at one period was prevalent over the eastern world, and still exists both in the Hindoo and Buddhist systems. That the worship of the reciprocal principles once prevailed in Ireland there can be no doubt. How its relics came to be identified with christianity is one of those puzzling problems that seems peculiar to Ireland.

CLONKEEN.

This is a parish in the barony of Clanwilliam and County of Limerick, diocese of Emly. The church is an ancient one, situated near Barrington's Bridge, about six miles south-east of Limerick. The ancient form of the name is Cluain-Caein. That it was anciently a place of some importance there can be no doubt, from the style of the architecture of the church; yet I have not been able to glean any information respecting its ecclesiastical history. The *Annals of the Four Masters* has two notices which appear to refer to this place, as follows:—A.D. 1089—"Ruaidhri O'Conchobhair and Domhnall Ua Maelachlainn went in ships and boats, and plundered Munster as far as Cluain-Caein-Modimog, so that they scarcely left a single head of cattle so far (as they penetrated), and besides carried off captives." Again, under A.D. 1135, the same authorities have the following:—"Many of the men of Desmond fell by those of Thomond, at the causeway of Cluain-Caein-Modimog." Dr. O'Donovan has the following note under the former of these passages:—"Cluain-Caein-Modimog.—According to the gloss to the *Feilire Aengus*, at 21st of January, and O'Clery's *Irish Calendar*, at the same day this church was in the territory of the Eoghanacht Chaisil, which is the present barony of Middlethird, in the county of Tipperary. That this is the church intended in the above passages there can, I think, be no doubt though it is a good distance from the barony of Middlethird. It is a mistake to assert that the old denomination of the Eoghanacht Chaisil was confined to the present modern barony; it extended far more westward, the principal seat of its kings, Cashel, being nearly in the centre of its territory. Again we find that there is no parish or church of that name in the barony of Middlethird while both the events narrated would be more likely to occur in the locality have indicated, as it lies exactly in the track of the Connaught invaders crossing the Shannon and penetrating into the district of Desmond. These facts joined to the

local traditions, which ascribe the dedication of this church to St. Dimoge, or Dimock, are sufficient to identify this church as the Cluain-Cacin-Modimog of the *Annals*. It is always gratifying, both to the architect and antiquary, to be enabled to identify an ancient building, of which even the slightest records exist.

The church is at present in ruins, and is of various dates. The west end, evidently original, is pierced by the beautiful doorway shewn on plate. The jamb consists of two right-angled piers and a richly-ornamented angle shaft; the piers are plain, the angle pillar has a carved cap similar to the caps of pillars of chancel-arch at St. Camin's Church at Iniscatra, and the surface of the shaft is beautifully diapered with a zig-zag moulding enriched with pellets. Two of the arch members are carved in chevrons; the label moulding forms a panel, enriched with a similar ornament as the angle shafts, terminating in animal heads, and having a human head on the key-stone. Mr. Marcus Keane, in his interesting work, has illustrated this doorway; he argues for its extreme antiquity by drawings of the fragment of a pillar from the treasury of Atreus at Mycenæ, and also one from Avantipore, Cashmere. The former has most certainly in its ornamentation a most remarkable resemblance, but we cannot for a moment allow that our Irish example can in any way claim an antiquity at all approaching the Greek example. It is one of those coincidences which times and places very far remote sometimes present us with. The only other features of interest in this church is a small circular-headed window-ope, much injured, and shewing traces of two bands of ornament similar to what I have been describing round the internal jamb, and portions of antæ on the west gable. My illustration is taken from a drawing by Mr. Keane (*Towers and Temples*, &c., p. 248).

CLONMACNOISE.

There is perhaps no locality in Ireland so interesting in an archæological point of view as Clonmacnoise, its early history for several centuries being interwoven with the civil and religious affairs of the whole island. Its fame as a school of learning was known to all Christendom. Not only ecclesiastics, but men of the highest rank, from France, Belgium and Germany, sought its peaceful retreat, and drank from its fountains of pure intellectual truth. The sons of the nobility and heirs apparent of the provincial kings were sent here to be educated. It produced men of great attainments and learning; if we consider the age in which they lived; many notices of such are scattered through our annals. The ecclesiastical remains at Clonmacnoise are of considerable interest to the architectural antiquary, not because of their size or magnificence, for they make no pretensions to those qualities, but for their age, variety, and the peculiarities of style and construction which they exhibit. The principal remains are contained in the ancient cemetery, at present walled in, and containing about two acres. It is situated on a gently rising ground near the banks of the Shannon, in the barony of Garrycastle, King's County. It was anciently named *Druim-Tipraid*, i.e., the Ridge of the Well, probably one of much celebrity in pagan times, but subsequently dedicated to St. Finian. It was afterwards named *Cluain-Mic-Noisk*, i.e., the Retreat of the Sons of the Chiefs or Nobles, from the custom of the latter sending their children there to be educated, as I have before remarked. It owes its original celebrity to St. Ciaran the younger, to distinguish him from the elder Ciaran, who flourished in St. Patrick's time; he is also named Mac-an-Tsaer, or the Son of the Artificer. Ware states that his father's name was Boetius or Boenandus, and Archdall that he was the son of Boetius and Dasercha. Usher has fixed his birth at A.D. 516, and his death at 549, consequently he was but thirty-three years of age at his decease.

Little is known of this ancient worthy; but that his life was a useful one we must

infer from the sanctity attached to his memory, and the veneration in which his church was held in after ages. Of him we find the following passage in *Harris's edit. Ware*:—"The memory of St. Kiaran is yet fresh and precious in the minds of the neighbouring inhabitants; inasmuch that they make no scruple in joining his name with God's, both in blessing and cursing. 'God and St. Kiaran after you,' is a common imprecation when they think themselves injured. In the great church was hitherto preserved a piece of the bone of one of St. Kiaran's hands as a sacred relique. The ninth of September is annually observed as the Patron Day of this saint; and great numbers from all parts flock to Clonmacnoise in devotion and pilgrimage."—(p. 166). The extraordinary veneration in which this place was held is thus graphically described by Archdall:—"This monastery, which belonged to the regular canons of St. Augustin, was peculiarly and universally esteemed; it was uncommonly extensive, and amazingly enriched by various kings and princes; its landed property was so great, and the number of cells and monasteries subjected to it so numerous, that almost half of Ireland was said to have been within the bounds of Clonmacnoise. And what was a strong inducement, and contributed much towards the enriching this house, it was believed that all persons who were interred in the holy ground belonging to it had insured to themselves a sure and immediate ascent to heaven. Many princes (it is supposed for this reason) chose this for their place of sepulture; it was the Iona of Ireland; yet notwithstanding the reputed sanctity of this monastery and the high estimation in which it was held by all ranks of people, it appears from the foregoing history that the abbey and town were frequently plundered, burnt, and destroyed by despoilers of every kind, from the unpolished Irish desperado to the empurpled king. The abbey also suffered by the hands of the barbarous Ostmen, and not only by them, but (with concern do we add) by the English then settled in the kingdom, whose errand hither, we would wish to think, was to conciliate the affections of the people, to unite them in bonds of friendship, and to teach them to live like fellow-citizens and subjects. Instead of this, we are compelled to say, they too often joined in the sacrilegious outrages of other wicked men, and repeatedly disturbed and despoiled the peaceful seminary at Clonmacnoise, sparing neither books, vestments, or any other appendages of the sacred altar which belonged to these truly inoffensive men."—(Archdall; *Monas. Hib.*, p. 391.) It is dubious whether St. Ciaran was first bishop, or abbot; the superiors of many religious houses are in our records indifferently styled by either title. The see is of early foundation. St. Tigemach, the successor of St. Ciaran, is styled bishop in the *Ann. Four Mast.*, and Baitan, who died A.D. 663, is styled abbot and bishop; it was united to the bishopric of Meath in 1568. The following notices of this place are taken from the *Ann. Four Mast.*:—"At A.D. 558, we find that Diarmaid, son of Fergus Cearbhail, monarch of Ireland, was slain at the battle of Rath Beagh, and that, according to his request, his head was brought to Clonmacnoise and interred there, his body being buried at Connor.

A.D. 645.—Diarmaid, son of Aedh Slaine, having gained the battle of Carn Conaill by the intercession of the religious of Cluain, after his return he "granted Tuaim-n Eirc (i.e., Liath Manchain), with its subdivisions of land, as altar sod, to God and St. Ciaran; and he gave three maledictions (i.e., curses) to that king whose people should take even a drink of water there. Wherefore Diarmaid ordered his burial-place at Cluain-mic-Nois."

In 733, Aedh, son of Allan, King of Ireland, having slain Aedh, son of Colgan, King of Leinster, in the battle of Ath-Seanaith, the latter was interred at Clonmacnoise.

A.D. 832.—"A great number of the family

of Cluain-mic-Nois were slain by Fiedhlemidh, son of Crimthan, King of Cashel, and all their tormaen was burned by him to the door of the church."

A.D. 834.—"Cluain-mic-Nois was profaned by Cathal, son of Ailell, lord of Ui-Maine, against the prior, Flann, son of Flaithbheartach, (ono) of the Ui-Forga of Munster, whom he cast into the Sianain, and killed. The rights of seven churches (were for this) given to Ciaran, and a great consideration."

We here find that the revenues of seven churches in Hy Mainy were given as eric or compensation for the profanation of the church of Clonmacnoise and the slaying of the prior. These, and numerous similar notices in our annals, indicate that the native Irish were by no means the religious, obedient, devoted sons of the church that modern spouters have delighted to represent them. The hard naked truth of our native annals record that they were as ready to rob a church or monastery, and kill a priest or abbot, as were the Danes or Saxons who landed on our shores as open enemies.

A.D. 940.—"A great flood in this year, so that the lower half of Cluain-mic-Nois was swept away by the water."

A.D. 1023.—"The tormaen of Cluain-mic-Nois was plundered by Gadhra, son of Dunadach, and carried off many hundred cows from thence. . . . Erard Mac Coisse, chief chronicler of the Irish, died at Cluain-mic-Nois, after a good life."

A.D. 1026.—"The paved way from *Gardha-an-bhainbh* to *Uhidh-na-dtri-gross* was made by Bresail Conaillach, at Cluain-mic-Nois."

This is an interesting notice, as it is evidence that paved roadways were in use among the Irish at this period. Dr. Petrie's work on "Tara Hill" (published in the *Trans. Roy. Ir. Academy*) contains an account of the five great roads of Ireland, and the first volume of the Brehon Laws (published by the Record Commission) contains the old laws for the maintenance and cleansing of the ordinary roads through the country. MacGeoghegan reads the first-named place *Garrdha-a-banabbaid*, i.e., "the garden of the abbess." The other terminus signifies the "station of the three crosses," a spot still recognisable at Clonmacnoise.

A.D. 1045.—"Amhalgaidh, son of Flann, chief of Calraighe, died of an unknown disease, before the end of three days, after obtaining forcible refection at Cluain-mic-Nois."

A.D. 1059.—"Conn-na-m Bocht, the glory and dignity of Cluain-mic-Nois, died at an advanced age."

A.D. 1085.—"Gillachrist Mac Cuinn-na-m Bocht, the best ecclesiastical student that was in Ireland in his time, the glory and ornament of Cluain-mic-Nois, died."

Conn-na-m Bocht, i.e., of the poor, he appears to have been a layman, and the steward and administrator of the revenues of the see, and probably the distributor of its alms; he brought up several of his sons to the ministry; one of them, Maelfinnia, was abbot of this place, and died in 1056. Maelchiaran, another son, was also abbot; he died in 1079. Gillachrist, already named, and Maelmaire, whose death is thus recorded in *Ann. Four Mast.*—

A.D. 1106.—"Maelmuire, son of Mac Cuinn-na-m Bocht, was killed in the middle of the Daimhliag of Cluain-mic-Nois by plunderers."

A.D. 1129.—"The altar of the great church of Cluain-mic-Nois was robbed, and jewels were carried off from thence, namely, the *Carracan* (model) of Solomon's Temple, which had been presented by Maelseachlainn, son of Domhnall, the *Cudin* (Catinum) of Donchadh, son of Flann; and the three jewels which Toirdelbhach Ua Conchobhair had presented, i.e., a silver goblet, a silver cup with a gold cross over it, and a drinking-horn with gold; the drinking-horn of Ua Riada, King of Aradh; a silver chalice with a burnishing of gold upon it, with an engraving by the daughter of Ruadhri Ua Conchobhair; and the silver cup of Ceallach, successor of Patrick." These valuables were afterwards

recovered, as we find recorded in the *Annals of Clonmacnoise*, at A.D. 1130:—"The Jewells that were stolen from out the church of Clonvicknoise, were found with one Gillecowgan, a Dane of Limbrick. The said Gillecowgan was apprehended by Connor O'Bryen, and by him delivered over to the family of Clonvicknoise, who at the time of his arraignment confessed openly that he was at Cork, Lismore, and Waterford, expecting for wind to goe over seas with the said Jewells. All the other passengers and ships passed with good gales of wynde out of the said townes, save only Gillecowgan, who said as soone as he would enter a shipp-boarded any shipp, he saw St. Keyran, with his staff or Bachall, return the shipp back again untill he was so taken. This much he confessed at the time of the putting him to death by the said family."

This incident gives us some idea of the wealth of these churches in sacred utensils and other objects of art. The Carracan, or model of Solomon's Temple, must have been a rare piece of work, judging from the fragments of shrines, croziers, &c., which have come down to our day. The catalogue given only refers to the articles actually taken, which were probably but a portion of the treasures of the church at Clonmacnoise, which for two centuries preceding had been plundered by the Danes upon several occasions.

In 1156 Torelac O'Connor, King of Ireland, died, and was interred at Clonmacnoise beside the altar of Ciaran; he was in his sixty-eighth year, and is highly panegyrised by the *Four Masters*.

As an evidence of the vicissitudes to which these seats of religion and learning were subjected, it will be sufficient to refer to their historical annals; those of the *Four Masters* alone record, that Clonmacnoise was nine times burned between the years 719 and 1179, and sixteen times plundered between 841 and 1178.

THE IRISH CIVIL SERVICE BUILDING SOCIETY.

WE have read the last annual report of the directors of this society, and, we confess, we do not see that the radical and sweeping alteration that should have been made in its management has even been hinted at, no more than effected. In the years 1866-7-8-9-70 and again in 1871, alterations and amendments have taken place, and all we can grant is, that they are indeed alterations, but they fall very far short of what amendments should be. Surely the directors of the Irish Civil Service Society do not want the Irish public to believe that they did their duty in closing their share list, and carrying on the society as a mere loan and investment company, receiving money on deposit and investing it for the exclusive profit of existing members? There is no blinking the fact that the Irish Civil Service Society was a fatal instance of a so-called building society growing larger and richer year by year, and, in accordance with its altered rules, acting detrimental to the interests of those whom it proposed on its establishment to serve. It has for a long period excluded the working classes from the means of safely investing their savings, consequently it merited the censure passed upon it by Mr. Lynch Daniell. Shutting up share lists in *bonâ fide* building societies has never been the rule, but the exception, both in England and Scotland, and the Dublin society has been the most grievous offender. Our object in dealing with *benefit building societies* was not to fling dirt at officials whom we do not personally know, and who may be otherwise very respectable citizens, but we desired to see a good design faithfully carried out and utilised for the fair and equitable advantage of those classes who stand in need of being faithfully served.

We will await for some time longer to see the action of the Irish Civil Service Society under its amended rules, and its re-opened share list, before we narrowly criticise its

new career. If professions are worth anything they should be upheld, for in breaking them directors, managers, and secretaries are certain to suffer more in the public estimation than they are possibly aware of. If the Irish Civil Service Society wishes to change its functions, it can possibly do so, but it must cease at once to trade under a name that is unfitted for it. Whatever charges we have already advanced against its management were amply corroborated by the evidence of its own officials, and by the practical observations of a commissioner who possesses a good deal of experience and sober common sense. We will pursue other points of the subject probably in our next.

IRISH BUILDING STONE.

WE have on several occasions directed attention to the almost exhaustless resources of building stone in Ireland. For two centuries back the quarries of Ireland have yielded stone, slate, flagging, lime, ochre and other painting earths, for British and foreign uses. Within the present century the supply for external uses has been small, Irish marbles being the principal stone exported. The Killaloe, Kilkenny, and Galway beds have been those which have been mostly developed. Lately, however, the County of Donegal has been yielding excellent granite of different colours, quite as applicable and as durable for outside building purposes as those of Dalkey, Ballyknocken, or the much-praised Aberdeen red granite, which has for some years been extensively used for monumental purposes.

Mr. W. Harte has, by considerable exertion, brought into public notice and favour the various specimens of the admirable Donegal granite. In a brief article in the *Mining Magazine and Review* of last month, the Donegal granite meets with a most favourable notice, and from our own experience of the subject we can fully endorse and supplement the encomiums in our excellent contemporary. There is no doubt a considerable scarcity of English granite in the market, and, from the atmospheric conditions of London, there is no stone so suitable for use therein as granite. Portland stone of good quality has been found to wear well, but there are so many descriptions of freestone used in the chief towns and cities of England, that no very clear idea exists amongst architects or builders which description is really the best. Fancy to a great extent overrules experience, and precedents are formed and followed, and, in consequence, stone that is positive rubbish is used. Stonemasons as well as builders and quarrymen, like stone that is easily quarried and worked. Sculptural effects are easily produced in stones of soft texture, but these effects are nowhere to be found in a few years. Polished granite has much to recommend it to the attention of architects, builders, workmen, and clients, who hope for permanent credit instead of passing fame.

Speaking of Donegal granites, an estimate has been given of the grey or red, or a mixture, for a house 28 feet frontage and 43 feet elevation—

Cost of polished granite	£324	0	0
Mouldings, &c.	60	0	0
Freight to London	21	15	0
	£405	15	0

Reduction in the cost can be obtained, of course, by using one-third of polished granite and two-thirds of plain white granite, and the facing in this instance would not amount

to more than £170, including freight to London. A few hours' rain dashing against a house front will brighten up the granite to its pristine colour. In the somewhat clear atmosphere of Dublin, granite wears well, and we need only point attention to the old public buildings of Dublin, faced with granite, to show how well the stone has worn, although a little washing would be an improvement in some cases. In Union-street, in the city of Aberdeen, we were struck very much, on a recent visit, with the extraordinary sparkling and brilliant white colour of the house-fronts.

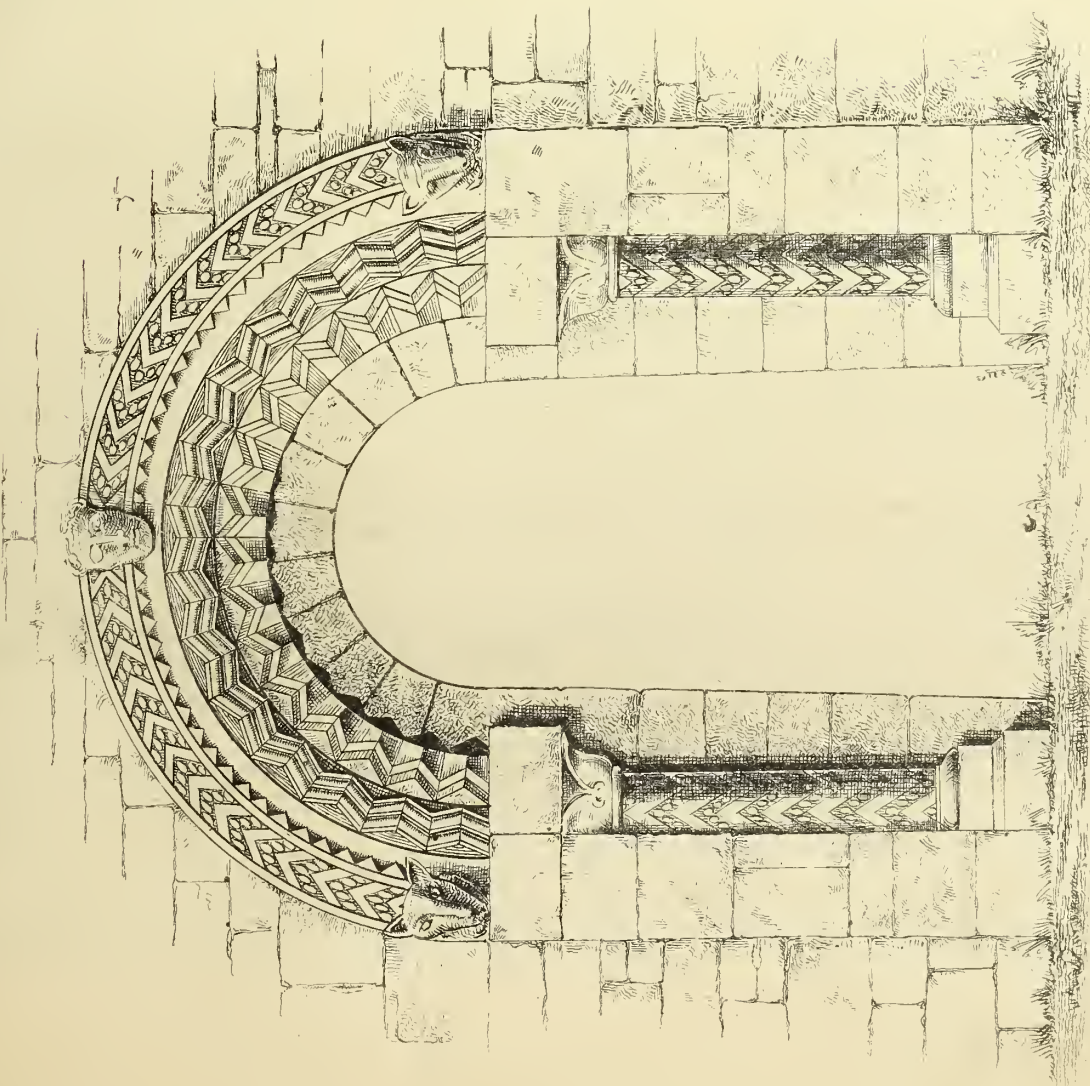
Visitors to Dublin connected with the architectural and cognate professions would not do amiss to inspect Mr. Harte's specimens of the Donegal granites, as also other specimens of Irish building stone, particularly marbles, on view by our native and local exhibitors at the Exhibition Palace.

A VISIT TO TORY ISLAND.

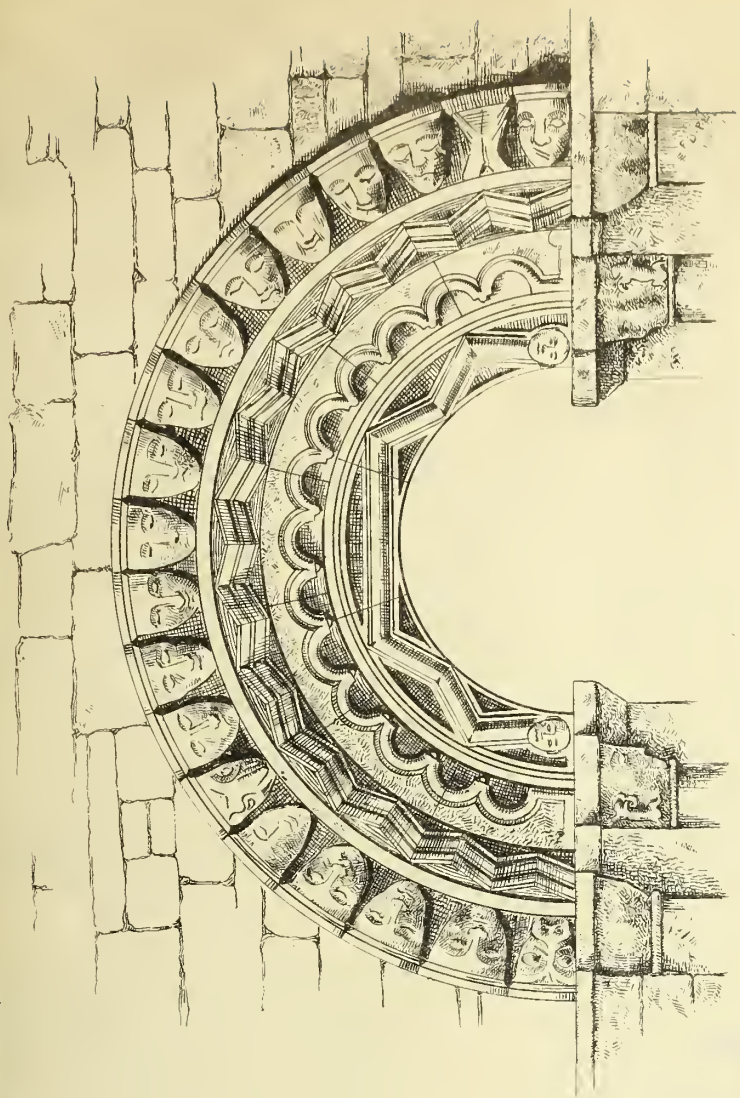
[COMMUNICATED.]

As this remote dependency of the Crown up to this had not been visited by any one from the Board of Fisheries, Mr. Blake availed himself of the circumstance of being in the neighbourhood on duties connected with the inland fisheries, to cross the often dangerous sea that divides the island from the mainland. The inspectors of schools and police have not been able for the last two years to visit those under their charge. When reached, however, after a vigorous pull of nearly twelve miles in the six-oared Coast-guard boat, Tory well repays the trouble.

For the antiquarian there is the foundation of the Castle of Balor, who ruled the island in pre-historic times; a round tower of other days, and some mounds of stones marking the sites of the seven churches of St. Columbkille. For the lover of nature, there is the very finest cliffscenery in the kingdom, with vast waves beneath them. To the lover of his kind, there are the people of Tory, a handy, industrious simple race. Living to a great age without a doctor, and though having no clergyman except, perhaps, a short visit from one, after an interval of months, they are described by the sub-officer in charge of the detachment of police, kept there only to prevent smuggling, as the most orderly, religious, and virtuous people he never met. On one point they are very resolute—not to pay any county taxes, and with some show of reason. They have made all their own rude roads, and support their own poor, rarely set a foot on the roads on the mainland, do not enter the workhouse, or trouble the dispensary doctor, and protest against paying for what they do not use. It is said that the Amelia gunboat, with 120 police, has been ordered to the island to enforce the rates. If so, dire distress must follow, as the few cattle and sheep of the island must be brought for sale to the mainland. Anyone looking at the thin soil—where there is any soil at all, as fully half the soil is mere stone—must marvel how the poor people eke out life and pay rent; and yet they honestly pay their rent to the agent of Mr. John Baptist Joel, a Manchester merchant, the lord of the soil. His rent is made up, in addition to the scanty produce of the barren soil, by fishing and kelp-making, the presence of the police depriving them of two sources of profit—distilling, and trading for tobacco with passing ships, as well as appropriating wrecks. Ultimately the island must be abandoned from the fuel being exhausted. The great lion of the place is the King, Patrick Heraghty the First. Like Alexander the Great and Napoleon, his Tory Majesty is of small stature. Curiously too, of the 240 inhabitants, he is the only Protestant, a good proof of the toleration of his voluntary subjects. The only tribute he receives from them is in exchange for the liquor of which he is the sole vendor. Lately he met with a sad bereavement in the death



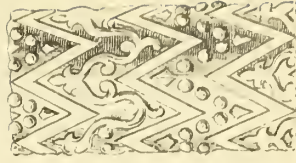
DOORWAY AT CLONKEEN CO LIMERICK



DOORWAY AT DYSSERT CO CLARE



FRAGMENT OF PILLAR
TREASURY OF ATREUS MYCENÆ



FRAGMENT OF PILLAR
AVANTIPORE CASHMERE

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of his heir presumptive, aged three. A neat tombstone is about being erected to his memory, which, after stating his name, age, and period of death, contains the following, the composition of his "Royal" father, and engraved by a friendly artistic policeman:—

"He's called from earth to heaven above,
His father's joy, his mother's love;
An Infant Prince of Tory's line,
Bright as an angel now doth shine."

Much there is to see and write of Tory. Its king, its people, and its enchanting scenery which might be dwelt upon with pleasure, over and over again. But the warning voice of the coastguard officer bids those who do not wish to spend a fortnight "amidst those scenes so charming," to embark forthwith.

A strong pull through the surf, a good breeze after, and in two hours and a-half Ireland is reached again.

A CITY NOTE!

THE *Freeman's Journal and Daily Commercial Advertiser* of yesterday has the following:—

"CORPORATION COMMITTEE.—Sub-committee A of No. 1 Committee for scavenging, watering, &c., met on yesterday at one o'clock, p.m. Alderman Gregg in the chair. There were also present Councillors Callow, O'Neill, and Dockrell. The absent members were Alderman Tarpey, and Councillors Carson and Gavan. After the transaction of the business submitted, the committee rose at 2.40 o'clock, p.m."

SANITARY MATTERS.

THE unsanitary condition of this city remains almost unchanged. An occasional offender is dragged before the police magistrates and fined, but on the north and south of the Liffey there are human rookeries seething in filth, and infecting purer localities with their foul poison. We might cite numerous recent cases in illustration, and of numerous others the particulars of which have not been dragged into the public light, owing to the indolence of our civic rulers, with whom religion and politics are the principal topics for discussion. The following bad case may be taken as a light sample of hundreds of others:—

"Henry Cole, of 12 Charlemont-street, as the proprietor of the houses 1, 2, 3, and 4 Sackville-court, was summoned by Sergeant Joseph Hyland, 29 C, for 'having, contrary to the Sanitary Act of 1866 and several other acts, the premises aforesaid in a state unfit for human habitation, through the existence of the following nuisances, namely—the flooring, roofs, and ceiling being in general bad repair; the entrances to the houses dirty, and the apartments unwholesome through the want of lime-wash and of proper accommodation for the inhabitants, thus rendering the occupation of the places dangerous to health and a nuisance in the locality, the nuisance existing on the 29th of June last.' Sergeant Berry deposed that he had visited the premises that morning, and found them in a most horrible condition, and had to pick his steps through the passage to them. He added that nothing had been done to remedy their condition since the service of the notice. A certificate from Dr. Mapother was handed in, to the effect that the places were unfit for human habitation, owing to bad sewerage, filth, and general dilapidation. His worship said that there was a great outcry at present about the sanitary condition of the city, and in the burning weather which now prevailed it was intolerable to have the existence of such a nuisance as was deposed to; he accordingly made an order under the act for closing the houses forthwith, until they should be certified by the proper officers to be in a condition fit for human habitation."

Need we ask again why do not the magistracy or the law adviser of the Castle move in the matter, and put in force the provisions of the Sanitary and Nuisances Removal Act? The Lord Lieutenant or Under-Secretary are clearly called upon to interfere when the Corporation are so grossly neglectful of their duties! The officers of the Public Health Committee do a little now and again, but they appear either powerless to grasp with the mischief or faint-hearted in attacking it.

A raid was made lately upon adulterators and vendors using light weights and measures, but the evil exists still to a great extent, and will until imprisonment without the option of a fine is imposed, and injunctions granted prohibiting the evil-doers from resuming their trade within six months of the term of their conviction, or the termination of their sentence. The functions exercised by our Corporate officials must be superseded by the powers vested in the executive, if justice is to be done to the city and the citizens. Both our Town Council and our Board of Guardian meetings are disgraced by political tricksters or those employed by them in wire-pulling, and the poor are let to take care of themselves. Men who were agitators all their lifetime, and who for decency's sake ought to retire for the good of their souls, are still exercising their vicious and imbecile intellects in fanning up sectarian and political strife. We have charlatans crying out for "Home Rule," whose own homes are on a par with the homes of the poor, the neglect of which is attributable to these self-same mountebanks. This city is experiencing enough of the local curse of "home rule" as applied to sanitary matters, and there are none, we think, that will envy the accumulation of home dirt that the Corporation of Dublin holds in trust for this city, and the poisoning of a guiltless posterity. Here is a capital with many things to feel proud of in architecture and the arts, in public buildings and public men, but the fond illusions we conjured up passes, and, by the accursed existence of an imbecile and criminal Corporation, Dublin stands naked before the world as THE SLATTERN OF CITIES.

CIVIC LYRICS.—No. XVIII.

THE INEXPRESSIBLES.

(After Burns)

Some men are born and bred to rule,
Who never went an hour to school;
And some are born to act the fool,
With rugged dimple.
And men whose minds are very small,
Slow to think, but strong to bawl,
Are always found at Humberg Hall,
Like Peter Simple.

Some men of old denied their God,
Have licked the dust, and kissed the rod,
And anon have rode roughshod
O'er law and morals.
Their imitators live to-day,
And if St. Peter came the way
They'd rob him of the fabled key,
And ask for laurels.

CIVIS.

THE PUBLIC WORKS IN IRELAND.

THE yearly report of the Board of Public Works in Ireland has been laid before Parliament. From this report some information may be obtained and deductions drawn. From the following summary our readers will see at a glance the operations of the board, and how far the facilities presented by its existence are availed of in this country. The total amount of the loans granted from the year 1831 to the 31st March last was £11,141,819, leaving a balance of £2,204,819 of the money authorised by Parliament to make further advances. During the past year sanctions have been made to advances by it to the amount of £234,754. During the year the board received 69 applications for loans from ministers of various denominations, 36 of which, amounting to £16,159 were sanctioned by the Treasury; 8 were from various causes refused, and 25 remained under consideration or waiting further action on the part of the applicants. Of the 36 loans sanctioned, two only had been fixed to be repaid in a less period than 35 years—the limit of the time authorised by the act for the repayment of these loans. Since their last report the board had received 332 applications from tenant farmers for the purchase of their farms under the provisions of the Land Act. The total sum applied for was £196,504. The board

consented to advance £108,462 to 220 of these applicants in aid of their respective purchases. About 60 became ineligible under the terms of the act in consequence of having purchased their holdings before giving notice of their intention to borrow, and obtaining provisional sanction in accordance with the requirements of the act. Only two drainage boards applied for loans for the purpose of improving a district by means of arterial drainage works during the past year, viz., the Derrinlough district in the King's County, and the Baltracey, in the County Kildare. The board have reason to believe that many similar works, which it would be most desirable to have carried out, had been postponed because of the doubts entertained by the owners of land as to the powers of the board to increase the rents of tenants holding from year to year. A bill had been prepared to remove these doubts. Only one loan of £1,650 was made, under the Labourers' Dwellings in Towns Act, for building forty-six cottages in the neighbourhood of Dungannon, which are in course of construction. The applications for advances under the Lands Improvement Acts had undergone little change, the amount of loans authorised being £83,100 against £83,390 sanctioned in the previous year. The total loan advances during the year amount to £161,202; and the repayments, including principal and interest, in the same period, to the gross sum of £165,880. The following statement shows, under general heads, to what purposes this amount has been applied, and the sources from which the repayments have been made, viz.:—

Public Works Loan Fund—		Advances. Repayments.	
Counties	£855		
Labourers' dwellings in towns	855		
Fishery piers and harbours	94		
Glebe loans	8,327		
Other services	1,723		
Arterial drainage works	£18,238	£11,554	£10,212
Do. Maintenance	2,725		
		20,963	48,663
Employment of laboring poor			5,229
Land improvement		82,555	98,811
Land Act		45,880	2,961
		£161,202	£165,880

The amount issued, to be expended under the control of local boards, for improvements by arterial drainage works falls short of the issues in the previous year, the figures being respectively £18,238 and £25,850. On the other hand, the advances to proprietors for improving their estates under the Land Improvement Acts show an increase of £4,575, the amounts being £82,555 against £77,980 in the previous year. Twenty-nine new ordinary literary national school-houses have been built in the past year, at a total cost of £11,118 12s. 10d., towards which the board paid as grants two-thirds, or £7,412 8s. 7d., the remaining one-third of the expense being contributed by local persons interested in the schools; and three have been commenced upon which instalments on account of grants have been paid to the extent of £380.

We will most likely look into this report again, as there are many items in it that suggest important considerations bearing upon the industrial and manufacturing interests of this country.

CORRESPONDENCE.

JOHN SEMPLE, ARCHITECT.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Can you or any of your professional correspondents or readers inform me, through the columns of the IRISH BUILDER, who was the architect of Essex-bridge, whether Scotch or Irish? and if he was related to John Semple, the architect who built Bagnals-bridge over the Barrow, a mile below this town? I do not expect a reply in next issue. The insertion of above queries may elicit a reply from some old Dublin practitioner.

Bagnalstown, 29th July, 1872. C.E.

P.S.—Thanks for your advocacy of our claims, which has had the decided effect, though not yet sanctioned by Parliament.

ADVERSARIA HIBERNICA.

STRANGERS, as well as natives, have borne evidence for many centuries in the support of the high perfection attained by the native Gaels, not only in realms of music, but of the arts. Cambrensis (no very warm advocate of our countrymen) thus writes:—"The attention of these people to musical instruments is worthy of praise; in which their skill is beyond comparison—superior to any other nation, for in these the modulation is not slow and solemn, as in the instruments of Britain, but the sounds are rapid and precipitate, yet soft and pleasing. It is extraordinary that in such rapidity of the fingers how the musical proportions are preserved and the art everywhere unhurt among their complicated modulations and the multitude of intricate notes, so sweetly swift, so irregular in their composition, so disorderly in their concords, yet returning in unison, and completing the melody. Whether the chords of the diatesseron or diapente be struck together, they always begin in dulce and end in the same, that all may be perfect in completing the delightful and sonorous melody. They commence and finish their modulations with so much subtlety, and the tinkling of the small strings sport with such freedom under the deep notes of the bass; delight with so much delicacy, and soothe so softly, that the excellency of their art lies in concealing it." This is certainly a flattering tribute from a much-abused historian, who told many truths garnished with not a few legends or lies.

It has been stated by some authority that an Irishman once, making a complimentary speech to Scaliger, spoke with such a strange pronunciation and accent, that the latter observed—"Domine non intelligo Irlandice." ("Sir, I do not understand Irish.") In more modern times, Dr. Johnson is reported to have snubbed Macklin, the famous Irish comedian, who replied during a disputation with the doctor, who was giving a Greek quotation, that he did not understand Greek. "A man," replies Johnson, "should not argue if he does not understand Greek." "All right," replies the comedian, and he instantly treated the dictionary-master to a quotation in Irish, replying, during the doctor's confusion, "A man has no right to enter into an argument with another who does not understand Irish."

Dress has been in all ages a subject that was submitted to much criticism on the part of public writers and churchmen in the pulpit and outside it. Oecleve, in 1420, complained of the waste in lords' clothing, particularly in pendant sleeves sweeping the ground, which, with their fur, amounted to more than twenty pounds. And an Irish writer, at the close of the last century, in allusion, said that this fashion travelled to Ireland, and monstrous pendant sleeves made part of the thirty ells in an Irish shirt, and were forbidden by an act of Henry VIII. The Irish ones were made of native linen, and descriptions of them will be found in the pages of Spenser, Camden, and others.

The famous Lady Montague has painted a rare beauty perhaps in her description of Fatima. We could find more worthy rivals, and ones more peerless—not mere ideal but real ones—in this island. On the present occasion we decline to give a picture from the portrait-gallery of an Irish author or authoress, but will refer the reader, Celtic and Saxon, to Lord Byron's beautiful lines, beginning—"I knew an Irish lady once."

In 1260 Edward III. granted a free export to all Irish cloth or frieze, and even excepted these staples in England from duty, if manufactured from Irish wool. Irish woollens were in great repute in the latter end of this monarch's reign, consisting of a frieze cloth and serge. Mantles were made by the

natives, called a "cadow," and manufactures were established in Dublin and many of the chief towns in Ireland. In the reign of Richard III. these mantles were exported to England duty-free, and a privilege was given to the Pope's agent in respect to Italy. In later reigns measures were enacted prohibiting the export of Irish woollens and other products, and in Charles II.'s reign severe enactments were made and enforced against the free exercise of Irish commerce.

Many unsuccessful attempts were made at founding a school of painting in Ireland before the close of the last century, and some public collections of art objects were got together, but became again dispersed. A Mr. Stuart once brought together a good collection of paintings, and the Earl of Charlemont and Lord Moira did a good deal to give encouragement to the project by their patronage and purchase. About the year of 1793 an *Irish Shakspeare Gallery* was founded, and, as a beginning, seventy-two pictures illustrating the text of Shakspeare were announced. The price to subscribers was to be a guinea each. Eighteen of these pictures were finished and placed on view, painted by the following artists:—Northcote, Peters, Wheatley, Hamilton, Fuseli, Opie. Some of these artists painted two, three, or more of the pictures illustrative of different scenes in Shakspeare's plays. Five more pictures were afterwards added, some by the above artists and by others. The subscribers increased for awhile; enthusiasm was awakened, but it did not long survive. Other subsequent attempts failed early in this century, and it was not until Francis Johnston, the Irish architect, devoted his services and money in founding the Royal Irish Academy that the first Irish school of painting was really established. Notwithstanding the lapse of years since this architect's death, though we may boast of our artists abroad, our artists at home and their national school are under a cloud. We hope it may have a silver lining.

The art of ornamenting and illuminating manuscript books was practised at a very early date in this country, but as to the precise period when these efforts commenced we need some particulars. Not only was colour used, but gold, silver, and gems were inlaid on their covers and in the beginning of particular chapters of the work. A version of the Four Evangelists, by St. Columba, is mentioned by Usher, emblazoned with plates of silver and preserved in the Church of Kells. Monumental brasses were not so plentiful in the Irish churches as those of England, but the few valuable ones that did exist were defaced, stolen, sold, or melted down for other uses, during the reigns of Elizabeth, Henry VIII., Cromwell, and in later reigns. Fresco (wall-painting) was to be found in many churches down to a very late period, but at the present day very little traces exist, though it is highly probable that a careful research would disclose some specimens.

The action of the Encumbered Estates Court did good service during its existence, but the property it transferred to new proprietors was legal or legalised; but what was its action compared with the Plantation of Ulster and the several confiscations? Conquest succeeded conquest and spoliation in this unhappy island, and these acts are now matters of history. The rulers of the Pale clutched the property of the natives, but the rulers had again to surrender to their successors. The estates of Thomas Earl of Kildare and his five uncles were confiscated by Henry VIII. after their execution. Mary, Elizabeth, and James I. confiscated 5,675,809 acres—in other words, the whole of the King's and Queen's counties, and the large possessions of Desmond and O'Neil, and others. Cromwell added a considerable addition to the forfeited estates, and in Charles

II's reign there stood nearly 8,000,000 of acres of the landed estates of the natives for adjustment or appropriation. Next come the estates of those who opposed William III., consisting of 1,060,792 acres; these were sold in virtue of an Act of Parliament. In a word, upwards of two-thirds of the whole landed property of the island was confiscated within one century.

We lately gave a pretty elaborate enumeration of Irish family names, and others of foreign importation. If an exhaustive account should be required, the history of the northern nations must be examined. Many of our Irish surnames undoubtedly belong to the northern nations, and a number of them can be found among the Anglo-Saxon, Scandinavian, and in the famous Domesday Book—Murdac, Nele, Tuoy (Twohy) Bergin, &c. The Icelandic chronicle will supply a field for further inquiry, and an interesting and a profitable one.

In Nash's edition of *Hudibras* there is a note meant perhaps to throw light on Butler's lines—

"For tails by nature sure were meant
As well as beards for ornament"—

"At Cashel in the county of Tipperary, in Carrick Patrick Church (the cathedral on the Rock of Cashel), stormed by Lord Inchiquin in the Civil Wars, there were near 700 put to the sword and none saved but the Mayor's wife and his son. Among the slain of the Irish were found when stripped *divers that had tails near a quarter of a yard long*. Forty soldiers who were eye-witnesses testified the same upon their oaths." Here's food for Darwin, with corroborate proof. What need is there for him puling any longer about "natural selection," or hunting up the origin of species among the antediluvian skeletons of the gorilla in the delta of the Nile. The Celt had a tail himself, and he was prone to plough by his horses' tails. Pat's pony, mule, and donkey have still their tails, but Paddy's own tail has been worn off by constant sitting. Oh, Darwin!

"This (July 2, 1793) day being quarter day of the Corporation of cutlers, painters, stationers and stationers, or guild of St. Luke, the following gentlemen of the Roman Catholic persuasion were unanimously admitted to the freedom of the said Corporation, in pursuance of the act of the present session: Thomas McDonnell, stationer; Richard Cross, do.; Patrick Wogan, do.; Patrick Byrne, do.; Hugh Fitzpatrick, do.; Peter Hoey, do.; Luke Dempsey, painter; John O'Neill, do.; Thomas Smyth, do."

Messrs. Wogan, Byrne, Fitzpatrick and Hoey, were Dublin publishers and booksellers of note also, and continued their trade for some years into the present century.

DUBLINIENSIS.

REDTAPEISM AND TAXES
IN BROOKLYN.

WE clip the following from the *Daily Eagle* of the 13th ult.

A good sample of the average taxpayer made his appearance this morning in the Mayor's office, took the Mayor's swivel chair, whirled himself around three or four times, and then let himself out pretty near as follows:—

"Well, sir, what are you going to do about cleaning the streets?"

"We have," replied the Mayor, "already done a great deal. We have arranged with the Captains of each Police Precinct to have their patrolmen report all streets not in good condition, and these complaints, together with those of citizens who may choose to make any, are conveyed daily to Police Headquarters. From thence they are sent to the Board of City Works, whose duty it is to at once send their inspectors to clean them. Then, a list of the streets"—

"Red tape, plenty of it, of course," interrupted the average taxpayer.

"A list of these streets," continued the Mayor, without replying to the interruption, "is then sent to the Health Officer, whose duty it is in conjunction with Dr. Squibbs"—

"Oh, yes, more roundabout work, I suppose," again chimed in the average taxpayer. "And they proceed at once to disinfect the streets according to the plan already fully described in the public prints."

"And then you'll bring in a bill, I suppose," said the average, "of 15,000 dols. or 20,000 dols. for us poor taxpayers to liquidate."

In one of its leading articles in same issue the *Eagle* writes:—"Despite the sneers of the 'average taxpayer' a certain amount of red tape is needful to the conduct of business, public or private. Red tape means system and order, without which progress is impossible. Abuses are the frequent outgrowth of red tape, which therefore has sometimes to be cut; but, if red tape were discarded altogether, we should presently discover that we could not get on at all. Reports by police Captains of streets that are dirty, the reference of the matter of cleaning them to the Department of City Works, the turning over of the disinfecting business to the Board of Health, and other processes of which the 'average taxpayer' is impatient, are necessary parts of executive routine. It is impossible, however, not to reflect that it would have been a good thing to do the reporting and the thorough cleaning and the disinfecting before the late protracted warm weather. The death list might have been reduced."

WORKMEN'S CLUBS.

A CONFERENCE of delegates from the provincial and metropolitan workmen's institutes was held on Saturday, 20th ult., in the lecture theatre, South Kensington Museum. There were ten subjects for discussion, the first being "The best means of interchanging the advantages of club membership between the affiliated clubs."

Mr. Alsager Hay Hill opened the discussion, observing that it was very desirable that the workmen's clubs throughout the country should be consolidated in some manner. He thought before creating relationships between several clubs, there ought to be a relationship established by the unions. If the members of clubs paid a small toll to the union, the work of both institutions would be promoted and improved. He thought union cards should be issued to these members, and so show that they subscribe to the general unions as well as to their own particular club.

Mr. E. Hall agreed with Mr. Alsager Hill as to the issuing of cards, but thought they should entitle the holder to admission into other clubs.

Mr. Exley, of Batley, in Yorkshire, said that this plan was already in successful operation in his neighbourhood.

Mr. Pratt said he had received information that there were fifteen London clubs and seventeen country clubs willing to receive members of other clubs on production of their cards.

The Rev. F. W. Beaumont moved that this discussion should be laid before the Council of Working Men's Clubs and a committee of the union, for them to arrange what should be done. This was passed unanimously. It was thought necessary that a building fund for the erection of workmen's clubs should be established, and the question was sent up to the council.

The means of rendering clubs self-supporting were discussed, and the proposals are to be laid before the council to choose the best.

It was agreed to have a special organ to circulate information relating to the club movement.

"The payment of an annual subscription by all affiliated clubs, such payment to cover the privilege of using the library." On this question it was considered best to allow two payments to be made. It was agreed that

four "representative" members should be elected to serve on the council on behalf of the provincial clubs.

In continuation of the subject we have reported above, we would direct attention to those interested in the movement, that an opening exists in this city for the establishment of a few workmen's clubs, singly or incorporated. No difficulty exists of carrying on an exchange of privileges for members, between those which might be established in Belfast, Derry, Galway, Kilkenny, Cork, or Limerick, with those in Dublin. Workmen's clubs, if properly organized, would be more than self-supporting, and could be made to yield a profit that might be devoted to useful ends.

ENIGMA.

(Written for the IRISH BUILDER.)

The Royal will, the majesty of the Throne—
The dignity which fain would hedge the Press,—
Both quietly ignore me, and disown
My being. What is it? will you guess?

Great people always move so slow,
It's hard to change them;—then let it be;
'Tis loss of words to make them know
The willing servant they could have in me.

Complain I must they've put me on the shelf,
While two members of my family
Fill up the place which I myself
Should occupy, where I alone should be.

'Tis only great men take this trouble;
They change me into two or more,
Although they've never seen me double,
Either now or any time before.—

Unless it may be after dinner;
But that's no earthly reason,
Because, like every other sinner,
They see things then quite out of season.

Most people, I'll acknowledge, use me fair,
And treat me as becomes my race;
In speaking, writing, everywhere,
They have me in my proper place.

And some there are can't do without me;
They're fond of praising all they do.
Methinks it would far better be
'Twere left to others or to you.

Full well I know I'm in your mind,
And most when thoughts of self arise;
But, to be plainer, you will find
I'm now before your eyes.

THE NEW POST OFFICE, LONDON.

THE new buildings in St. Martin's-le-Grand, London, which are in course of completion, and intended for the General Post Office proper, are the largest of their kind yet erected. The design has been subjected to some criticism, like many other public works in London, and its faults (of course it is not faultless) have been fathered on a well-known architect, whose pen betimes is more active than his pencil. According to a statement published in a contemporary, the foundations were begun in December, 1869, and if no delay or accident should occur, the building will be ready for opening about the first of the new year. It is rectangular, its measurement being 286 feet (the St. Martin's-le-Grand frontage) by 144 feet (the Newgate-street frontage). It has four storeys above the basement, and from the paving line to the top of the balustrade is 84 feet high. The design was prepared by Mr. James Williams, the Assistant-Surveyor of Post Office Buildings. The new building is in the Italian style, the lower portion being distinguished by Doric pilasters, the upper by Corinthian, surmounted by an entablature and a balustrade, which partly conceals the roof. The whole of the building is faced with Portland stone. The different floors will not be appropriated for all the purposes as originally intended, it being found that the enormous increase of telegraphic business necessitates much more room being devoted to it than at first contemplated. Hence, for the present, the money-order and savings banks business will be conducted in the separate buildings where it has hitherto been transacted, and the telegraph business

will take up the greater part of the new building. The basement will contain the telegraph batteries, and four steam engines, which will be employed in working the pneumatic tubes, used for the purpose of sending written telegraphic messages to the sub-offices. These tubes must not be confounded with those of the Pneumatic Tube Company, which are no longer used for the transmission of letters; they are simply three-inch pipes for carriers, familiarly called "pop-guns," and used for the purpose of transmitting telegrams received from various parts of the country, and transcribed on small pieces of paper and sent to the sub-offices in the metropolitan district. Time is thus saved, and the multiplication of telegraphic instruments to a very great extent obviated. The ground floor will be appropriated to the use of the Postmaster-General and Accountant-General, with the necessary reception rooms. The first floor will be occupied by the secretaries and their staffs, while the third and fourth floors will be entirely devoted to the telegraph business. The room gained in the old building by removing the offices of the chief officials will be very valuable, and will materially conduce to still further improvements in the method of conducting the enormous business of this department. Still, with the rapid increase in the postal and telegraphic business, many years can hardly elapse before additional room will be required. This, we will take the liberty of suggesting, might be obtained by raising the old building, which now consists only of two storeys, with certain erections here and there on the roof, to the height of the new building. It certainly seems a great waste of room for a building covering so large an area as the old Post Office to be only two storeys in height. Some modification of the existing elevation would of course be necessitated, and we should then have two noble buildings, practically one, devoted to a service of which the nation may be justly proud. The new building, for which Messrs. Brass & Co. are the contractors, has been constructed on the best principles hitherto discovered for rendering it perfectly fireproof. *En passant*, Messrs. Brass were one of the firms from which the Central Committee of the Carpenters of London withdrew their men, thus leading to the lock-out of the masters, and the still-existing strike.

The delay thus occasioned may have the effect of retarding to some extent the prosecution of the works, and it is possible that the new Post Office will not be finished as soon as was anticipated by the contractors and the Government.

L A W.

ACTION FOR UNSKILFUL WORKMANSHIP.

ARMAGH ASSIZES.

James Connor v. the Newry Foundry Company.—This was an action instituted by the plaintiff, who was a railway contractor in partnership with the late Mr. Olley, contractors for the execution of works on the Dundalk and Greenore Railway and the harbour and docks at the latter place, to recover damages laid at £200, from the defendants, who are engineers and boiler makers at Newry, for breach of contract, in not executing in a workmanlike and proper manner certain repairs, viz., the supply of a set of new lap-welded tubes to an old locomotive engine used in plaintiff's works, but which repairs plaintiff asserted were executed in so improper and unworkmanlike a manner that the tubes leaked, the engine could not work efficiently, and the plaintiffs were delayed in the fulfilment of their contract, and otherwise put to loss and expense. The defendants traversed the contract as alleged, and pleaded that they did execute the repairs in a skilful and workmanlike manner.

The jury found for the plaintiff £82 damages and the costs.

THE MEETING OF THE BRITISH ASSOCIATION.

This year's meeting takes place at Brighton, and it is expected to be a very attractive one. The members of various scientific societies will attend. The meeting will commence on Wednesday, August 14th, and continue till Thursday, August 22nd, when it will close with the usual excursions for members and associates. The President elect is Dr. W. B. Carpenter, F.R.S., &c., who will deliver his inaugural address on the evening of the 14th. On Thursday evening, the 15th, and on Tuesday evening, the 20th, soirees will be held. For these the entire northern block of the Pavilion property will be appropriated, namely, the Dome Assembly Rooms, the adjoining large building used in the days of the regent as the Royal Riding School, but now converted into a Corn Exchange, and the recently built Free Library and Museum. The exhibition of pictures, articles of vertu, philosophical instruments, and objects of artistic and scientific interest will be very large and varied. The Brighton Natural History Society are arranging a complete flora of the South Coast, both living and dried specimens; also a microscopical display, to which the most eminent London makers and the leading metropolitan societies will contribute. It is anticipated that about 400 microscopes will be in use during each soiree. The list of general contributions comprises some unique and very rare articles and objects. On Friday evening, the 16th, and Monday evening the 19th, lectures will be delivered by eminent scientific men. At least two of the sections will have surpassing interest. It is authoritatively announced that the information received from Dr. Livingstone will be communicated in the geographical section. It is therefore certain that Mr. Stanley and Dr. Livingstone's son will attend the meeting. The geological section will also have special importance by reason of the boring now being made on the estate of Mr. W. Mappin at Netherfield, near Battle. This boring—instituted by Mr. Henry Willet, of Brighton, and supported by most of the leading scientific men of the day, as well as by many members of the nobility—will determine what Professor Ramsay has termed "the one geological problem now remaining for solution in this country." The problem is found in the question "What underlies the wealden formation of Kent and Sussex?" Beyond its scientific interest the boring has national importance in that it is expected by many geologists to reach the productive coal measures. Four "half-day" excursions are arranged for Saturday, August 17th, and five "whole-day" excursions for Thursday, August 22nd. The new Brighton Aquarium, a building matchless of its kind in the world, will be opened and stocked for the meeting of the Association. Many invitations have been sent through the Mayor of Brighton (Mr. Cordy Burrows) to Continental and American savans, who will attend the meeting as the guests of the municipality. Numerous acceptances have been already received. Working men delegates are also invited from London and the chief centres of industry and manufactures; and a special lecture for working men will be delivered by Mr. W. Spottiswoode, F.R.S. The railway company will allow fortnightly and monthly tickets to be issued to members of other scientific bodies and associations in London—a concession which will, doubtless, be a great inducement to many scientific and professional gentlemen to visit Brighton during the period of the meeting. Application for association tickets and local information should be addressed to the Rev. J. Beck, local executive secretary, at the Royal Pavilion, Brighton.

HOME AND FOREIGN NOTES.

RESEARCHES AT EPHESUS.—The Dilettanti Society has issued a report as to the results of Mr. Wood's decorations on the site of the Temple of

Diana at Ephesus. In the autumn of 1871 Mr. Wood came upon the lowest drum of a column nearly entire, on which was sculptured a group of male and female figures, standing and sitting. The standing figures were 6 ft. high; the whole mass of white marble weighed upwards of eleven tons. It was evident that this belonged to one of those thirty-six sculptural columns which Pliny mentions as among the *admiranda* of the Temple. Fragments of two more sculptured drums, a pilaster with a fine group in high relief, magnificent capitals, bases, and drums of columns, all of the finest white marble, were lying in confused heaps at the bottom of the excavation at the close of the year 1871. It was time to remove these first fruits of the enterprise, and the Caledonia, promptly despatched from Malta by the Admiralty, took on board upwards of sixty tons of marbles in January last. Since the beginning of this year Mr. Wood has removed the upper strata of soil from a much larger area, preparatory to deeper excavations in the autumn.

THE DUBLIN TRAMWAYS.—Now that tramways are established in Dublin, there exists no earthly reason why they should not be made more serviceable for the public. The penny system for short rides or journeys could be established with a profit to all. From the Rotundo to the Bank, from the Bank to the College of Surgeons, from there to Portobello Bridge, and so on. These separate short distances could be charged at a penny, instead of charging a uniform rate for short and long distances alike. People should not be compelled to pay for a greater distance than they require to go. We hope this suggestion will be considered.

THE VIENNA EXHIBITION, 1873.—The conditions upon which this Exhibition will be conducted are now being circulated in this country. The Austrian Regulations state that the price to be charged to each foreign country for the entire area of space demanded will be—in the Industrial Palace, at the rate of 10 florins (£1) per square metre (a square metre contains about 10½ square feet), and in the Machinery Hall at the rate of 4 florins (8s.) per square metre. In the other parts of the Exhibition and grounds the rent per square metre will be:—In the courtyards of the Industrial Palace, 8s.; in the park—open air, 2s.; in spaces covered at the expense of exhibitor, 6s. All applications for space and information are to be made to Mr. Owen, 41, Parliament-street, London.

A LEGAL LITTERATEUR.—David Paul Brown, an eminent lawyer of Philadelphia, and the author of many works in literature, died in that city on the morning of the 11th ult., at the age of seventy-eight. We would like to be informed was this Mr. Brown any relative to the Brown who figured in the newspaper literature of Ireland during the anti-tithe agitation early in the present century?

CIVIL LIST PENSIONS.—The following is a list of all the pensions granted during the year ending the 20th ult.:—Sir William Fothergill Cooke, Knight (in recognition of his services in connection with the introduction of the telegraphic system into this country), £100; Mrs. Sophia Elizabeth de Morgan (in consideration of the distinguished merits of her late husband, the late Augustus de Morgan, as a mathematician), £50; Miss Marie Francois Catherine Doetier Corbaux (in consideration of her services in sacred literature and attainments in learned languages), £30; the Rev. Frederick Henry Ambrose Scrivener (in recognition of his services in connection with Biblical criticism, and in aid of the publication of his works), £100; Mrs. Caroline Stopford, widow of Major George Montagu Stopford, of the Royal Engineers (in consideration of the distinguished military services of her father, Field-Marshal Sir J. Burgoyne), £150; Miss Selina Henrietta Burgoyne (in consideration of the distinguished military services of her father, Field-Marshal Sir J. Burgoyne), £75; the Misses Susan, Mary, and Eleanor Robertson (in addition to the pensions of £50 each which they already hold in consideration of the eminent literary merit, as an historian, of their grandfather), £50; Mrs. Rose Gray (in consideration of the services of her late husband, Mr. Thomas Gray, as one of the first projectors of railways), £30; Mrs. Helen Lemon (in consideration of the literary services of her late husband, Mr. Mark Lemon), £100; Mrs. Mary Ann Thorpe (in consideration of the labours of her late husband, Mr. Benjamin Thorpe, in connection with Anglo-Saxon literature), £80; Mrs. Emma Meyer (in consideration of the services of her late husband, Dr. John Meyer, as superintendent of the hospital at Smyrna during the Crimean War, and afterwards of the Criminal Lunatic Asylum at Broadmoor), £60; Mr. Joseph Stevenson (in consideration of his services in connection with Historical Literature), £100; Mr. Thomas Wright (in addition to the pension of £65 granted in 1865 in

recognition of his literary merits), £35; Miss Sarah Fanny Mayne (in consideration of the personal services of her late father, Sir Richard Mayne, K.C.B., to the Crown, and of the faithful performance of his duties to the public), £90; Mrs. Jane Elizabeth Wood (in consideration of the services of her late husband, Mr. William Wood, as the inventor of the process of weaving carpets by machinery), £70; Mrs. Emily Southwood Smith (in addition to the pension of £60 a-year awarded in 1868 on account of the valuable and gratuitous services of her father, the late Dr. Southwood Smith), £30. Total, £1,200.

CHISELLING POSTERITY.—We read of a most determined and resolute thief in Middlefield, Conn. He removed the corner-stone of a church and stole a few coins which had been deposited there for the eyes of far distant generations, thus accomplishing the entirely novel feat of stealing from posterity. An indignant religious newspaper compares this to "the theft of acorns from a blind hog," which strikes us as a fresh and satisfactory simile.—*New York Tribune.*

The *Globe* thus dilates upon a peculiar trait in the English character. Paddy is credited with a chronic grumbling about his wrongs, or rather his country's, but your matter-of-fact Saxon ignores his country except upon special occasions, and ventilates his own in the following fashion, according to our contemporary, which is not far astray:—"The pleasure of trying to be miserable is a peculiar kind of English enjoyment. As a rule, only the better classes can afford to indulge in it, but during the holiday season an unusual capacity for finding petty grievances appears to be developed amongst hordes of our travelling countrymen, and even countrywomen. Some of these commence to get into the proper state of unreasonable irritation as soon as ever they buy a suit of tweed at their tailor's, or drive in a cab to the first railway station of their journey. Of course they will abuse the Channel passage, though we suspect they are the people who suffer least from the usual horrors of that dreaded voyage. The grumbler is, for all his asserted valetudinarianism, made of tough stuff. It is to be observed that, whenever he announces the arrival of the spotted fever or the cholera at a watering-place, and drives the local mayor and the lodging-house keepers into the most pathetic attitudes of indignant denial, he is himself never the victim of the supposed epidemic. He writes to the papers to say that he has fled from the infected district, unless indeed it pleases him to remain and note the ravages of the imaginary pestilence. According to his own account, he ought to have been poisoned by the wine at a dozen hotels at least. His hair should be white from the agonies of a single attempt at sleep, in a score of Scotch inns. He has been pillaged by innumerable licensed robbers at home and abroad. He is loud in his warning against the rapacity of Swiss guides or of Killarney beggars. He endures everything, it would seem at first sight, for the common good. He cannot expect a distinct reputation for his discoveries or experiences, for he only figures under two letters or a *nom de plume* in the papers to which he communicates his trials and his hardships."

THE USES OF PAPER.—In Boston they advertise paper suits of clothes for sixty-two and a-half cents a suit. This is cheap enough, though if a person wearing one of them should get caught in the rain we imagine he would feel still cheaper. They ought to be cool and comfortable, especially if they are made of wrapping paper, but they would hardly keep their shape with the thermometer at ninety-five and one hundred. We are not informed what sort of paper they are made of, but they might be the means of disseminating a cheap literature; one could wear a small volume, so that he that runs could read. It would be economical to have the suits printed on both sides, so that they could be turned the second day, and a person could in this way wear a serial through the week, "to be continued" being stamped on the coat tail. On Sunday he could put on good clothes, with a sermon, or religious extracts from the secular papers, printed on them. There is no end to the variety in costume that can be attained in the use of paper, or to the good that can be done. Business men will come down to their offices in the morning in a suit of the morning daily, cool and fresh, and sure that they have the latest, because the telegraphic news will be on their backs. They will thus be the means of spreading information wherever they go to non-subscribers. Summer clothing will not hereafter get out of style, but it will get out of date, for a man's old suit will be at once recognized. Instead of being pointed at as having old clothes, he will be noted as wearing old news. We are evidently only just in the beginning of our discoveries of the uses of paper.

THE NEW SILVER COINAGE.—A supplementary estimate for the Civil Service for the current year has been issued. It amounts to £83,584. The sum of £27,600 is asked for the Mint. This amount is required to defray the expenditure consequent upon the large additional amount of silver which it is found necessary to coin this year to meet the requirements of the public. The cost, however, will be more than repaid to the Exchequer by the seigniorage realised by silver coinage. The extra receipts payable to the Exchequer in 1872-3, will be thus increased from £50,000, as stated in the original estimate, to £140,000. Part of the amount is to provide for the execution of the preliminary processes of a silver coinage at Birmingham. £15,600 is required for the following purchases of acquisitions for the British Museum, viz:—Manuscripts (nine Egyptian Papyri of very great historical interest), £2,600; Greek and Roman antiquities (excavation of Temple of Diana at Ephesus), £3,000; coins and medals (to be selected from the collection of the late Mr. Wigan), £10,000. £30,000 is required for diplomatic services, half of it being for the expenses in connection with the arbitration at Geneva, the other half being for commissions under the Treaty of Washington.

THE CRISIS IN THE BUILDING TRADE.—The universal resort to strikes in London and throughout England has nearly produced a dead lock in many branches of the building trade and its cognate branches. There are so many occupations depending on building that a real grievance has been shown on the part of the public, who wish to be served as well as on the part of those who serve them. Time is getting more precious day by day, and money of less value. A pound sterling is no longer of its former value, and in consequence the operative elements are determined to give less of their labour to compass it. Ireland as well as England is feeling the effect of the new phase of the labour question, and the beginning of the end has not commenced.

TENDERS.

Forsix dwelling-houses, Sidney-place, Cork.
Mr. Richard R. Brash, Architect:—

Richard Evans	£5,200
Francis W. Jackson ..	4,080
Thomas Walsh	3,750
Terence Flynn (accepted)	3,500

ERRATUM.—In the list of tenders in last number for Improvements at Windsor House, Cork, that of Mr. William Barnard should have been £1,280, not £2,280, as stated.

THE CLOTHING OF COTTAGES.

Few things are more incongruous in landscape scenery than the garish glare of a new cottage, or the bald walls or bare tiles of an old one. Cottages are frequently indispensable as lodges, gardeners' residences, and even for ornament. But it is comparatively seldom that they are well managed, and made to fit in to and even to contribute to the richness and beauty of a landscape. In most cases they are planted, or rather smothered out. A thick blind of trees and shrubs is got up to shut out the cottage and shut in the inmates. This renders a dwelling unwholesome, and also deprives a landscape of a very enjoyable feature, that of habitability, if I may so call it. The rising smoke from the chimneys, the light and sound of living beings, all add new features and charms to a landscape. Hence, where cottages exist, within or near the grounds belonging to an estate, they should be made worthy of the position, and made to harmonise with it. Sometimes a slight or considerable change in the buildings themselves will be needed; a new front or end, or chimney, a tower, rustic or otherwise; a flagstaff, a castellated roof, or a gable end, &c. In others, nothing is needed but the judicious clothing of the walls with ivy, clematis, roses, jasmines, &c. A few trees planted, and a rustic fence, are very effective. This mode of partially revealing the house is very pleasing. The walls, roofs, and chimneys even can be wreathed or embowered in green, contrasting charmingly with the windows and their white blinds. Lodges seldom look so well as when treated in this manner. They thus form a green link, alike refreshing and pleasing, between the dusty public road

and the finely timbered park and polished pleasure-grounds of the country mansion. It would be well for the health, comfort, and happiness of many gardeners, as well as for the further adornment of many charming landscapes, were gardeners' houses removed from the back sheds, where so many of them are placed, and erected, as features of interest and beauty, on some of the best spots of the pleasure-grounds. D. BURY, in *Garden*.

THE INSTITUTION OF CIVIL ENGINEERS, LONDON.

The following are the awards made by the Institution of Civil Engineers for papers read at the meetings during the session of 1871-2. By an oversight they were omitted in a former issue:—

A Telford medal, and a Telford premium, in books, to Bradford Leslie, for "Account of the Bridge over the Gorai River, on the Goalundo Extension of the Eastern Bengal Railway."

A Telford medal and Telford premium, in books, to Carl Siemens, for paper on "Pneumatic Despatch Tubes: the Circuit System."

A Telford medal, and a Telford premium, in books, to William Bell, for paper "On the Stresses of Rigid Arches, Continuous Beams, and Curved Structures."

A Telford medal, and a Telford premium, in books, to John Herbert Latham, for description of "The Soonkésala Canal of the Madras Irrigation and Canal Company."

A Telford medal, and a Telford premium, in books, to George Gordon, for paper on "The Value of Water, and its Storage and Distribution in Southern India."

A Telford premium, in books, to Frederick Augustus Abel, F.R.S., for paper on "Explosive Agents applied to Industrial Purposes."

A Telford premium, in books, to Bashley Britten, for paper on "The Construction of Heavy Artillery, with reference to Economy of the Mechanical Forces Engaged."

The Manby premium, in books, to Charles Andrews, for paper on "The Somerset Dock at Malta."

The council have likewise awarded the following prizes to students of the Institution:—

A Miller prize to Oswald Brown, for paper on "Sewage Utilization."

A Miller prize to Arthur Turnour Atchison, B.A., for paper on "Railway Bridges of Great Span."

A Miller prize to John Addy, for paper on "The most suitable Materials for, and the Best Mode of Formation of, the Surfaces of the Streets of Large Towns."

A Miller prize to Alfred Edward Preston, for his paper on "Wood-Working Machinery."

A Miller prize to William Patterson Orchard, B.E., for paper on "The Education of a Civil Engineer."

TO CORRESPONDENTS.

IRISH ARCHITECTS.—John Mack designed several public buildings in Ireland, particularly in the capital, during the latter end of the last century. The first appearance of his name we remember at present occurred in the competition for the Royal Exchange (now City Hall) in the year 1769. James Gandon, Thomas Cooley, and other English and native architects sent in designs for the above building. There were upwards of sixty competitors.

OUR CIVIL CELEBRITIES.—In view of recent legal proceedings in our Civil Bill Court, we think the public and our readers are pretty well informed how seats are procured and votes obtained for the office of Town Councillor. The whole affair stinks, so let it be relegated to the Liffey or elsewhere into the unfathomable surges of public disgust.

THE CITY AUDIT.—Next month we will probably have a talk with our readers upon the subject.

HILL OF HOWTH.—There are many mineral resources that could be developed in connection with this historical hill and its vicinity, and mines have been worked there in days past, and will again, probably, before long. It must not for ever remain a place for picnics, however agreeable it may be to our holiday-loving citizens. Amateur geologists can hammer away elsewhere, but it is time the shafts should be sunk and the ore raised.

CURRENT LITERATURE.—Some notices of magazines and other forms of literature must stand over until next issue.

PARLIAMENTARY COMMITTEE.—In an early issue of this journal we will likely afford our citizens a short history of how the recent railway bills were worked, and the practical and pecuniary surroundings, as affecting witnesses on the part of promoters and oppositionists, and the hangers-on and noddies of our innominate Town Council.

ASPHALTE MATERIAL.—We are still of the same opinion as we were when we first recommended this material for pavement for the streets of this city. The *Val de Tracers* is an excellent material, and, where properly laid, and a steep gradient avoided, it will be found satisfactory and durable.

J. S. X.—All information respecting appointments of County Surveyors in Ireland can be obtained from the Secretary, Civil Service Commission, London, W.

C. F.—The architect requests us to state that he does not wish his name mentioned in the matter. Further correspondence is not desirable at present.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filled with vestas, at one penny. Any Tobacconist, Grocer, Chemist, or Chandler will supply it.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Post Office Orders and Cheques should be made payable to Mr. PETER ROE, 42, Mabbot-street, Dublin.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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NOTICE.—Atchley's Illustrated Price Book for 1872 can be sent from the IRISH BUILDER Office, post free, on receipt of 4s. in stamps.

TO ARCHITECTS.

PLANS, Elevations, and Perspectives Drawn in Superior Style by F. des Portes, Strasburg-terrace, Irishtown, Dublin.

EXHIBITION PALACE.

The M'ANASPIES are exhibiting original Busts of the Prince and Princess of Wales, the late Arthur Guinness, Esq., grandfather to the lord and donor of the Exhibition; Brooks, the tragedian; Dean Swift; and the M'Anaspies' Scagliola and Oriental Marbles, Inlaid Tables and Pedestals, Testimonials of Public Men, Antique Vases, ornamented with Satyrs, Cupids, and intertwined with Italian foliage, Festooning, Vine and Grapes, &c.; and seven designs of the O'Connell Monument, both Classic and Gothic, and one of them adopted by Mr. Foley for said Monument; as well as a Model of a Pig on a Paddock of Lard, with the emblems of the nations, and numberless other works on Art, Trade, and manufacture; also a specimen of Asphalte and stone made from alumina and silex.

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The M'ANASPIES challenge competition from here, there, and everywhere.

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Where will be found the largest most varied, and CHEAPEST assortment of Scotch Fire-Clay Goods in Ireland, and *Second to None in quality.*

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Gas Retorts.
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Goods can also be shipped by steamer or sailing vessel from Glasgow or the Works to any Port in Ireland.

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Field Drainage Pipes, from 1½ inch to 6 inches in bore, of the best quality, at moderate terms. Prices and all particulars on application. Inspection invited.

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The Irish Builder.

VOL. XIV.—No. 304.

A Man Among Men.

GREAT opportunity has been lost in doing justice to a man among men, who has left his impress on the mind of his age. Sir Arthur Helps's volume on the "Life and Labours of Mr. Brassey"* helps us but very little in arriving at an estimate of the career and labours of a truly great man in various ways.

Here is a man who had the true chivalry of a great soldier of human labour,—a soldier and a worker who not only undertook great projects, but successfully executed all he ever undertook. Under the control of his busy brain and industrious hands 6,000 miles of railway were constructed, at a cost of £78,000,000. Gossip is not biography in its true sense; and however amusing it may be to have a Boswell to give us underglimpses of the private and public life of a remarkable literary character, we needed a practical and

analytical mind, with mental calibre and mechanical grasp to portray the manifold and wonderful phases in a life such as has been lived by Thomas Brassey. In the execution of his great railway and engineering contracts, our great British contractor knew well how to select his workmen, and he could gauge to an inch the capacity and mettle of those whom he entrusted with labour that required skill, perseverance, and care. Thomas Brassey was not one of those greedy and speculative adventurers who clutched at a contract, and cared not how it might be executed, so as he made profit on the transaction. He never higgled with his overseers, foremen, or workmen about a day's wages, or about the number of hours they ought to work. Given a work to do, his aim at once was to find the competent men who best could do it with credit to themselves, himself, and the public.

Mr. Brassey had a great aptitude for business. According to his biographer, "there were periods in his career during which he and his partners were giving employment to 80,000 persons upon works requiring £17,000,000 of capital for their completion," yet throughout his vast undertakings his mind was ever clear, and doubts as to his capacity to complete his gigantic jobs never weighed him down. In Sir Arthur Helps's volume there are eleven chapters devoted to his career and character, and nine headed with the names of his most important undertakings, yet throughout all these we fail to meet with the material that we expected to

find. Neither the works nor the character of the great railway contractor are limned. Matters and details are promised in the volume, but the promise is not redeemed. Neither in the account given of the formation of the Great Northern Railway, the Grand Trunk Railway of Canada, or the Argentine Railway, are we furnished with the nature, success, or non-success of any of these great undertakings.

Sir Arthur Helps has written often and written well, but his volume of the life and labours of Thomas Brassey is not a successful work. The writing of such a volume was more fitted for the pen of an architect or engineer than a purely literary man. What a splendid volume would not the life of such a man have furnished if executed by one whose forte lay in such a direction! What interesting details and cogitations might not we have on the early history of our railway system, the fortunes expended, the vicissitudes encountered, the disasters intervening, and the triumphs achieved! In such a volume we could have even more than this. Many sketches could have been given of men who, though humble, played no unimportant part in the history of railway construction at home and abroad.

Pendant to the above, the son of the subject of the biography has given us, through the same publishing firm, a work which will opportunely supplement the volume of Sir Arthur Helps. Mr. Thomas Brassey the younger has produced a very useful work. He enters into a practical exposition of the present condition of work and wages. Although we have in his book no fresh analysis of the economic laws that betimes conflict with each other, yet we have conclusions drawn which are pretty lucidly stated.

The rights of labour are acknowledged, and the expediency of combination among workmen for bettering their condition admitted. He speaks calmly and considerately of strikes among workmen. Mr. Brassey considers firstly the great variations that take place in the prices of the best organised labour; secondly, he believes that strikes against a falling market are seldom successful; thirdly, the natural impossibility of strike promoters knowing the state of the markets sufficiently well to judge what would be a fair price for labour at a given time. In dealing with strikes, Mr. Brassey states certain fundamental conditions to be considered in striking—the state of the trade threatened, the amount of business in prospect, and the profits which are being realised.

The great influence of railway undertakings in increasing the demand for labour is discussed, and the remuneration it gave rise to not only in these islands but abroad. A chapter is devoted to the cost of labour, in which Mr. Brassey brings forward his father's maxim, that the highest-priced labour is the cheapest in the end. It is pointed out that dear labour stimulates invention and extends the application of labour-saving machines. In speaking of the reduction of the hours of labour, Mr. Brassey is with the trade movements, and points in illustration to two systems of mining. In South Wales, while the twelve hours' shift was in force, coal-cutting cost 25 per cent. more than in the north of England, where the collieries worked only seven hours a-day. In the construction of the Trent Valley railway line, where expedition was required, two shifts of men were employed, each working eight hours a-day.

It will be seen that Mr. Brassey does not believe that great works can be expeditiously or even economically performed by overworking men—by a system which finally exhausts them and renders them unfitted for labour.

Mr. Brassey's book is both a readable and an instructive one, and it will be found a useful companion to Sir Arthur Helps's, which we regret is not more worthy of the subject. We may on another occasion return to these volumes, which furnish material that needs further ventilation.

STRIKES AND LOCKS-OUT.

THE resort to a strike by workmen, and a lock-out on the part of employers is a clumsy method for settling the time and wages difficulty, so constantly cropping up not only in the British Islands but on the Continent and the United States. Strikes, in one form or another, have existed for centuries, and will exist for many years to come, until the whole condition of the labour question is reformed. Under the old combination laws it was rendered penal to combine or associate for enforcing an increase of wages or a shortening of the hours of labour. Workmen, of course, could refuse to work for any employer to whom they were not bound by any definite agreement. Notwithstanding, cases often occurred where men abruptly left their work, they were summoned before the justices, who mulcted in heavy fines, or imprisonment more often without the option of fines. Of late years, courts of conciliation and arbitration have been suggested and even formed for settling labour disputes, and, where their proceedings have been properly conducted, they have been beneficial in their action both to masters and men.

A strike, though usually looked upon in the present day as a sort of passive resistance on the part of the men, is often a most active one also, for, without infringing the law, workmen can tighten the screw to a great extent, and by doing so secure their demands sooner. They, of course, need good organization and funds to do this; and the history of the building strike of 1859 and the present one in London fully illustrates the extent of the power of workmen when they are united by branches or even by an ordinary *esprit de corps* over the kingdom. Workmen are very often blamed by one another as well as by outsiders for not standing by their fellows. The master builders of London have left themselves open to the same charge, for, during the late lock-out, they did not as a body, stand by each other. In numerous cases each has studied his own interests, and in consequence the lock-out was a failure, the only advantage gained being an agreement on the part of one section of the building workmen. Master builders, no more than building operatives, have never for any great length of time kept together. The workmen, however, must be credited with more unity of late years than formerly, and their trade societies and lodges are increasing rapidly over the kingdom.

In London, Edinburgh, as well as in Dublin, there have been repeated attempts made at forming associations of master builders. These attempts have invariably taken place in times of strikes, but when these had passed over, the masters' associations gradually died out. What we desire to see is, not masters' or workmen's associations formed for trade warfare, but for the upholding of the actual

* Life and Labours of Mr. Brassey. 1865-1870. By Arthur Helps. London: Bell and Daldy.

requirements necessary to the honest practice of each profession. Whether the parties interested be architects, builders, or workmen, there are wants belonging to each which need inquiry and reform, and it is indispensable that each should have a representation of their order. If each trade and profession had a permanent society to guard its interests, there would be little difficulty to overcome. In the case of builders, as in the case of workmen, the existence of a permanent association would be most useful, and, though it might be unable to prevent strikes or a resort to a lock-out, it would have the effect certainly of narrowing the issues very much, and lead to a sooner settlement of existing differences.

To sum up. We are heartily opposed to strikes and lock-outs as a means for settling the disputes between employers and workmen, as we believe that both are prejudicial to the parties themselves, and ruinous to trade in general. We acknowledge in the abstract the right of workmen to strike for a higher rate of wages, and also the right or the employers to resist the demand if they are confident that the paying of a higher rate would work them a sensible injury for the time being. The time, we hope, will soon arrive when strikes and lock-outs will be numbered with the things that were, and that the obsolete method will never be resorted to again, and be unremembered by our posterity.

ANALECTA HIBERNICA.

THE *Anthologia Hibernica* for September, 1793, records the death of a distinguished Irishman in the following terms:—"Gervas Parker Bushe, Esq., of Kilfane, in the county of Kilkenny.—He was member in the present parliament (the Irish) for Lanesborough, and Commissioner of the Revenue, and brother-in-law to the Right Hon. Henry Grattan. He was an excellent scholar, of most amiable manners, and well skilled in revenue business. His tract in the *Transactions of the Royal Irish Academy** on the population of Ireland is ingenious and useful. Though not applied to fiscal purposes in this kingdom, it is extremely necessary in many political views to know what are the numbers of souls in a state."

Here's another obit from the same historic and useful miscellany:—"In Marlborough-street, George Burrows, Esq., M.D.—He was the son of a respectable citizen in the medical line, and brother to the ingenious and Rev. Dr. Burrows of Trinity College. After studying in our University he went to Leyden and Paris in pursuit of knowledge, and returned after a long absence to the practice of medicine in his native city, with talents and accomplishments but rarely equalled. His excellent papers in the *Transactions of the Royal Irish Academy*, of which he was a valuable member, are not the least interesting in that learned publication. He fell a sacrifice to putrid fever, caught in dissecting a subject in the House of Industry, to which he was physician. This small tribute is all that can be offered to the memory of a beloved friend by one who has often experienced his skill and admired his social virtues." He was not the only member of a family of the same name who deserved well of Ireland.

Richard Kirwan, F.R.S., the Irish mineralogist, who was one of the first who reduced that science to a system, says in his "Elements," published in the last century—"Many of the granite mountains of Asia and America form large platforms at about half

their height from which several lofty spires arise. That the formation of these mountains preceded that of vegetables and animals, is justly inferred from containing no organic remains either in the form of petrifications or impressions, from their bulk, extension or connection, which seem too considerable to be ascribed to subsequent causes, and from their use and necessity for the production of rivers, without which it is hard to suppose that the world had existed at any period since the creation of animals. Most naturalists are at present agreed that granites were formed by crystallization. This operation probably took place after the formation of the atmosphere (which in the history of the creation is called the firmament) and the gradual excavation of the bed of the ocean, soon after which, it is said, that by the command of God (that is, by virtue of the laws of nature which he established) *the dry land appeared*; for by means of evaporation of part of the waters into the atmosphere, the various species of earths before dissolved or diffused through this mighty mass were disposed to coalesce, and among these the siliceous must have been the first, as they are the least soluble; but as they have an affinity to other earths with which they are mixed, some of these must also have united with them in various proportions, and thus have formed in distinct masses the felt, spar, shale and mica which compose the granite." These geological reflections are worthy of study, as they show our countryman in his ideas was far in advance of his day. Speaking further on, our author observes—"Mountains which consist of limestone or marble of a granular or scaly texture, and not disposed to strata, seem to have preceded the creation of animals, for no organic traces are found in them." And again he observes—"It is little to be doubted but that submarine volcanoes preceded not only the creation of animals, but also the separation of dry land from the waters; the Mosaic expression, *Let there be light*, seems to me to denote the consequences of those laws of nature to which volcanoes owe their origin." Richard Kirwan was a member of the Royal Irish Academy in the last decade of the eighteenth century. His geological insight is shown in the light of recent researches to be of a more than ordinary penetrating description. Why do not our modern geologists acknowledge their indebtedness to the Celt?

Our present-day citizens and civic worthies may find something to amuse them in the following items anent the Mayoralty of Dublin and its belongings in 1793:—"October 1.—Yesterday Alderman William James was sworn into office at the Castle, and invested with the insignia of the important office of Lord Mayor for the ensuing year, after which he proceeded to the Tholsel, where Meredith Jenkin and John Giffard, Esq., were sworn into office as high sheriffs, and Arthur Guinness, Esq., as sub-sheriff for the same period. In the evening his Excellency and several persons of distinction dined at the Mayoralty House, where a sumptuous entertainment, abundant in every delicacy, was provided. The Lord Mayor's liveries, as also the sheriffs', are white lined with scarlet, most richly and fully laced with scarlet and white lining lace, gilt buttons, with a profusion of tassels, and gold laced hats; and the four grooms of the chambers are dressed in fine purple blue cloth richly laced with gold. The Lord Mayor's coach is bright green highly varnished, richly ornamented with plated work, with heraldry handsomely emblazoned on the front, back, and side doors, the lining and hammer-cloth white, highly adorned with scarlet and white silk lace and fringe. The carriage is dark green, picked in with sky blue, orange, and white, and wreathed with gilt ribbon-work, the support of the boot and footman's stand elegantly carved and gilt. Sheriff Giffard's chariot is pearl blue; the carriage and wheels dark brown picked in with orange, blue, and white.

The silk manufacture for which Dublin has long been famous, and particularly during the eighteenth century, was introduced into this city about the year 1685 by a number of French refugees who left their country after the revocation of the edict of Nantes. An act of parliament in 1764 placed them under the protection of the Dublin Society, and subsequently a warehouse was established in Parliament-street, under the management of a board of directors composed of twelve noblemen and a committee of twelve other persons chosen by the weavers. The society allowed them 5 per cent. on all the goods sold therein. The trade, while managed under this system, averaged £70,000 yearly, and soon the manufacture arrived at a high degree of perfection. A prohibition preventing the appropriation of any of the funds by the society was brought about by an act of the 26th George III. Soon after, the warehouse was given up, and the manufacture rapidly declined. Tabinets and poplins still continued as a branch of the Dublin trade, but the glory of the Liberties and the Coombe departed for ever.

The Quakers, or Society of Friends, have taken well to this country, and many of them have benefited its trade while benefiting themselves. At what precise period they settled here is not accurately known, though it is generally believed that they first arrived here in Cromwell's army. In 1658 George Fox was in this country, and the celebrated William Penn is said to have become a member of the body in Ireland. A conference was held in Dublin in 1727, from which the Quakers issued a remonstrance against the slave trade. Upwards of a century ago they had more than a hundred meeting-houses, but there has not for many years been half that number. The Quakers must be credited with industry, and their industrious and commercial enterprise has rendered them a wealthy class of our people.

DUBLINIENSIS.

CURRENT LITERATURE.

THE MAGAZINES.

Blackwood this month has another thrust at the Government, strong and bitter, and calculated to increase further the antipathies of the constituency it appeals to against the ministry. The article on "The Late Earl of Mayo" is a well-written contribution, and is well worth reading. "French Home Life" treats of French taste and ingenuity in dress and other matters common to the wants of our continental neighbours. There are some criticisms on "New Books," well done, and on the whole this month's number is a good one.

Fraser's Magazine has another Irish article this month anent the Disestablished Church. "Terminations of Latin," "The Longevity of the Patriarchs," and the "Burgomaster," a Dutch story by Sir J. S. Levevre, are the names of three other articles worth perusal. An attempt is made in the article on the Longevity of the Patriarchs to reconcile scripture with science. It no doubt will please some, but the modern free-thinking school will be of their own opinion still.

St. Paul's contains a good opening story by Miss Jean Ingelow, entitled "Off the Skelligs," and Mr. Robert Buchanan the poet contributes an interesting paper on "The Birds of the Hebrides." The author of "Gynx's Baby," Mr. Jenkins, writes a good parliamentary satire full of humour, under the title of "Barney Geoghegan, M.P." There are many Barney Geoghegan's in Ireland and in England also at the present moment. "Cork's own town" could supply one, we have no doubt, and "dear dirty Dublin" could supplement the southern capital with a Barney of its own. *St. Paul's* is very readable and interesting this month.

The Gentleman's Magazine has several pleasant papers. "A Tale of the Post

* Already alluded to in the IRISH BUILDER.

Office" is sad and strange, and, as a love story, it is mournfully pathetic. The tale is written with some power, and care has been displayed in its construction. "Liberty and Libel," by Mr. J. B. Hopkins, and "The Players of Our Days," with "Old Loves and Old Love Letters," are the names of other readable articles. Mr. Hatton's story, "Stranger than Fiction" continues well. The writer of an article on "Table Talk" deserves not only a rap over the knuckles but a good flagellation for his ignorant nonsense anent our countrymen. Talking of Irishmen, he writes that the names of all the Irishmen of genius who crossed the Channel since the days of Queen Anne might be counted on the fingers of one hand. There is no use in reminding this shallow-pated amateur (for only an amateur or a cross-grained old humbug could have written such trash) of the host of clever Irishmen who have crossed the Channel since the days of Queen Anne to those of Victoria. At the present moment in London there are dozens of clever Irishmen, and men of true and original genius to boot. Notwithstanding the ignorance displayed by the writer of "Table Talk," this month's number of the *Gentleman's Magazine* is a varied and excellent one.

Belgravia has some attractive articles. Mr. Sala continues his amusing papers on "Imaginary London," "Great Mahogany Street, W.C.," has many touches of caustic satire on the follies of the day. Mr. Percy Fitzgerald's criticism on "New Comedy and Old," is good, and the two serial stories of the magazine are continued with much power. Some other papers of a minor nature are equally readable, and possess peculiar interest.

London Society is not up to the mark this month in its reading matter. Mr. Charles Read contributes "Simpletons," which will be read, but the other articles have not any special features to recommend them to more than ordinary notice.

St. James's has an article that will please some of our countrymen. "The Potteen Makers, an Irish Tale," will amuse. Those who have read Carleton's "Bob Pentland, or the Guager Outwitted," may be reminded of some things in this tale of spirits. Sir John Bowring's translations from the Hungarian, and "The Lonely Life," are two other good papers. The poetry is not the best.

Temple Bar is grave and gay this issue, and is withal interesting. Among the best articles are "The Fiji Islands," "German Students at the Beginning of the Century," and "University Culture and its Results." The stories are good. Mr. Wilkie Collins is announced for a new story, to begin in the October number.

Cornhill is up to the mark in this issue. The articles on "Dramatic Selection," "Russian Ghost Stories," and the serial stories of "Old Kensington" and "Pearl and Emerald" are very good. The other papers, however, are readable, and will please many readers of different tastes.

Tinsley is above the average. "Musical Recollections of the Last Half Century," "London's Heart," the leading serial story, and "A Baseless Fabric," are among the good papers. The poetry of this month is good, and many of the verses are really excellent in tone and spirit.

The *Westminster Review* for the current quarter contains some able papers. "Recent Experiments with the Lenses" is a somewhat curious paper. "English Philology" is searching and scholarly, and deals with the phonetic element of the science. "Greek Lyrical Poetry" is a very fine review of Bergh's "Poeta Lyrica Græci." "Sovereignty, Royal and Representative," deals, among other things, with modern democracy. The *Review* is generally if not always a readable and scholarly-written quarterly, and in consequence commands attention.

Macmillan's Magazine is varied and also amusing this month. "The Strange Adventures of a Phaeton," the serial story, by Mr. Black, increases in interest. Mr. W. G. Clarke writes a very useful and learned paper

on mediæval literature, which will be more than of a passing value. M. Sidney Colvin writes eloquently on some of the late phases of the French War. The other papers are all readable.

Between Irish writers and Irish subjects, the magazines of this month ought to be attractive to a good many readers on this side of the Channel.

THE CORPORATION AUDIT.

BEFORE the rising of Parliament some days ago, Colonel Stuart Knox asked the Attorney-General for Ireland whether the law advisers of the Irish Government see any difficulty in the case of the Dublin Corporation in enforcing this year the provisions of the Local Government (Ireland) Act, 1871, for the audit of its accounts; and as the accounts of that corporation for the year ending the 31st of August, 1871, have not been signed and certified by any auditor, whether the Attorney-General for Ireland can state that the accounts for that year will be audited by the auditor appointed by the Lord Lieutenant in Dublin, in 1871, for that purpose? The Attorney-General for Ireland said there was no difficulty in the case of the Dublin Corporation in enforcing the provisions of the act in question. With regard to the second part of the question, the law officers of the Crown, he said, are of opinion that the audit can be made; but inasmuch as the act only came into operation on the 1st of September last, the Lord Lieutenant did not require an audit for 1871.

We have before us as we write, the account of the treasurer of the city of Dublin for one year, ending 31st August, 1871. As an audit, the creation, compilation, and manipulation of the Corporation's own clerks and officers, it is certainly a curious medley of comical and complex matters.

We have not time or space in our present issue to go into detail respecting "The Borough Fund," "the Water Rates and Water Works' Loan Fund Amalgamated," "Improvement Fund," "District Sewer Fund," and the fund created by the moneys raised by presentments for or in lieu of Grand Jury Cess, or "the Dublin Markets and Vestry Cess Abolition Funds." In fact, the matters are too voluminous, and they are quite as suspicious in their details as they are long-winded in their setting forth. We will only remind the citizens and rate-payers of this unfortunate city, that the "Incidental Expenses," and the "Miscellaneous" items are worth an hour or two's careful perusal. Among these accounts there are figures which will make an honest man stare and stare, and possibly, if he is of a nervous temperament, the unfortunate rate-payer will pull his hair out by way of exercise while venturing a muttered curse, not against the gentle Denis Costigin, but the shameful clique of squandering impostors and public extortioners who are entrusted with the management of the affairs of the city.

From Mr. Bazalgette and Mr. Parke Neville, down to the foreman scavenger, and from the town clerk down to the tipstaff, the city estate is well milked, and the public pocket well bled. Salaries grow and grow, gratuities are given and giving, and superannuations, as a matter of fact, follow. Traveling expenses, and petty expenses are voted, loans are granted (and recouped, of course), and officers, according to the beautiful slipshod system for years in vogue at the City

Hall, may have their moneys advanced before they earn them.

Enough for to-day. We will endeavour to find time to analyze this rotten borough account, which we promise our constituents will be the last that will be published in this city without the sign manual of the Government auditor.

Before this borough account is buried in the Poddle, or sunk at sea in the patent hopper barges, it is well that it should be gibbeted for the edification and enlightenment of the many. What base uses has not the noble art of printing been fated to subserve. Type has been utilised to balance figures that would make Guttentburg jump in his grave, and Caxton expire in the greatest agony!

LECTURES ON PUBLIC HEALTH.

IN his sixth lecture on Sanitary Science, Dr. W. H. O'Leary, in speaking upon "Water," made a very interesting statement. He instanced the basin at Portobello as a good site for the erection of public baths at a small outlay. The matter is worthy of consideration. He also stated that he had inspected the place, and discovered that the bottom of the basin was flagged and paved, but was now covered with mud and weeds. There was, however, a sluice gate at one end, by the raising of which the basin might be thoroughly cleansed in a very short space of time, and an ample bath provided for the public. He commended this suggestion to the best attention of the Corporation; and he hoped no time would be lost in seeing to a matter of such great importance to the public health. The lecturer next treated of the important functions performed by the vegetable world in removing poisonous gases and replacing them by life-sustaining oxygen, and dwelt on the desirability of encouraging the cultivation of flowering plants, &c., in the dwellings of the artisan classes. He concluded by showing how organic matter was removed by the lower animals, and the very wise design which was thus so visibly displayed and carried out to the great benefit of mankind.

PIPE-CUTTING EXTRAORDINARY.

JOHN O'CALLAGHAN v. THE CORPORATION OF DUBLIN.

"Cutting the painter" was once, and perhaps is still, a favourite pastime with a section of our countrymen; but we thought pipe-cutting was mostly confined to the gas companies. Amalgamations, however, lead to monopolies, and monopolies to injustice and extortion. Had we several gas companies and water companies instead of one, we would have less cutting off of gas and water. We trust that the Corporation of Dublin have learned a lesson in its late defeat, and that it will be more cautious in future. It is not the first nor the sixth time the officials at the City Hall have bullied the humble, and extorted rates from those who had no right to pay the amount levied, but who disliked going to law to seek justice, knowing that justice is often bought in our law courts at a fearful cost in pocket and health. We can congratulate Mr. O'Callaghan on his contest, and we hope in future his courage may actuate others to follow his example in disputing every inch of ground with the marauder who may show his face, whether he be a common house-burglar or a Corporate pipe-cutter.

PRESBYTERY AND SCHOOLS, BOOTERSTOWN.

WITH this issue we give an illustration of Presbytery and Schools now being erected at Booterstown, Co. Dublin. The presbytery is three storeys in height, and provides accommodation for two clergymen, with necessary servants' apartments. It is being built for the Very Rev. Monsignor Forde, P.P., V.G. The materials used are red brick, with white and black bands. The schools (erecting for the Sisters of Mercy) will comprise one large infant school-room on ground floor 29 ft. by 49 ft., and class-room 19 ft. by 24 ft.; on upper floor one large school-room 30 ft. by 70 ft. At the rear of the schools, behind the chancel arch of church, will be a choir, to be occupied by the school children, so as to keep them distinct from the congregation. The tower, which is shown in our illustration, is in connection with this choir; it is constructed of memel, with green and blue slate roof and pitch-pine louver boards. The entire cost of the two buildings will be £4,000. The works were designed by, and are being carried out under the superintendence of, Mr. J. L. Robinson, architect. Mr. J. M. Cormack is the contractor. Our illustration is a reduction of the drawing on view in the Architectural Section of our Exhibition.

CONTRACTS AND EXTRAS.

OF all the difficult questions which arise in an architect's practice, there is no knottier point than that relating to contracts. Some architects think it necessary to have voluminous conditions of contract and agreements drawn up and signed by both employer and contractor, in order that each party to the agreement may be duly bound to carry out their part of it. Yet, alas! how often do we see what remorseless breaches a cunning lawyer may make in the best-drafted contract, when employed by a builder desirous of getting out of a scrape in having taken a job at *too low* a figure! What extra works may not be done? what bills of extras may not be prepared? and what bounds can be put to either?

The great difficulty is to know what constitutes a contract—whether it is necessary to have so many folios, or whether it is simply necessary for a builder to propose in writing to execute a building for a certain sum within a certain time. In a recent case heard at the Kildare Assizes, Mr. Justice O'Brien held that if the builder's estimate was stamped and the plans and specification signed on the same day, that it was sufficient to constitute a contract. He also held that, if one letter in itself did not constitute a contract, yet two or more letters passing between the parties might be considered as forming a binding contract, if one of them was stamped. This certainly is a clear and common-sense view to take on the subject. We are of opinion (although we would not recommend the laxity of this particular case) that the simpler and in the fewer words a contract is drawn up, the better understood it will be by both parties, and the less chance there will be of its giving rise to litigation.

With regard to extras, we are of opinion that in a great many cases they may be obviated by due care and consideration on the part of the architect in the preparation of the plans and specification, and an intimate knowledge of the site, in order that he may satisfy himself that the depths of foundation figured on his sections are sufficient, as on no other part of a building do so many extras arise as on the foundations, partly because most architects leave their depths to chance, and partly because it affords a good

opportunity to a dishonest builder; for once the foundations are filled round, who can say to what depth they are laid (as it is easy to find a certain spot the required depth)? or who can tell what rubbish may not have been used in the concrete which is charged at a fabulous price per yard in the bill of extras? Architects should also have a good practical knowledge of their profession, and the details of work—a qualification, we regret to say, too seldom found, as they generally consider it quite sufficient to *get up* showy and sketchy drawings, which, when analysed by a practical man, will be found to require various struts, stays, &c., in order to make them stand. It would, of course, be unfair to expect a builder to provide those *desiderata* for nothing, consequently a bill of extras mounts up slowly with perhaps trifling items, but none the less surely, as a few trickling streams converging tend to swell into a cataract of overwhelming proportions, unless they at their source are diverted into other channels. Some architects there are who, with a longing for the flesh-pots of Egypt, do not object to extras, as they tend to increase their own commission; but for the credit of the profession we hope that they are few, and that they will find fewer imitators. We have digressed very much from our starting-point, having passed from the consideration of contracts to extras; yet, on second thoughts, we have not been so very erratic, for in practice one invariably follows the other.

IMPROVED DWELLINGS FOR THE WORKING CLASSES.

AN effort on the part of some of our Dublin merchants or county lords and landed proprietors is much desired, that improved dwellings for our working classes may be erected. The money thus spent would not be thrown away, but would yield a fair return, besides earning for the pioneers the lasting gratitude of those who would be served by the experiment, which would doubtless be a successful one. The restorers of our ancient cathedrals have done good service, but there is ample room for the exertions of others actuated like the great American citizen, Mr. Peabody, or even Lord Shaftesbury, whose services are entitled to commendation. Money, however, to some extent is wanted as well as advice, but, on the other hand, money without good counsel is thrown away.

On the 3rd inst. Lord Shaftesbury laid the memorial stone on an estate of about forty acres at Wandsworth, which has been purchased by the Artisans, Labourers, and General Dwellings Company for the purpose of erecting thereon 1,200 improved dwellings for clerks, artisans, and labourers, also a building for schools, lecture-hall, working men's clubs, and free library, &c. In the centre of the estate a large building will be erected for co-operative stores for food and clothing, and on the basement swimming and washing baths. Three acres of land will be appropriated for garden and recreation grounds. Mr. Walton, who presided, commenced the proceedings by alluding to the objects of the company, and then introduced Lord Shaftesbury, who laid the stone, which bore the following inscription, viz., "Healthy homes the first condition of social progress," with the usual formalities. His lordship then addressed the numerous company present, and congratulated them on the good results which were likely to accrue from the work which they had just inaugurated. He cordially endorsed the principles adopted in working out the estate, notably the exclusion of public houses, and said they were founded upon a sound and wise basis. The dwellings in which a large proportion of the working classes in the metropolis and other large cities were compelled to reside were simply disgraceful. Instead of being homes they were unhappily often to their denizens either their "pigsties" or their "graves." Alluding to this subject, the noble lord said—Imagine a young man, about twenty years of age, in the prime of life, coming up from the country

to seek work in London. He may obtain perhaps as much as 35s. a week. As a matter of necessity, he takes, as it were, the first place he can get. The place is ill-drained and badly ventilated. He lives over a pestilential stream, and in a few months he is numbered with the dead, and his wife and family come upon the parish for assistance. There is nothing so economical as humanity. Whatever it may cost at the outset, good air, good water, and no overcrowding in close, noisome rooms, will be found the most economical and best means of developing the physical and moral energies which God has given to you. The domiciliary condition of the people involves health, comfort, and happiness. It involves also contentment, and people who are contented always give a government less trouble than those who are not. When men are contented they become excessively reasonable, and employer and employed find that their interests are identical. They must hold together, and by united action give force to progress. I should like, then, to see from the Queen upon the throne to the lowest in the land, one feeling of united sympathy of action, and one and all give "a long pull, a strong pull, and a pull all together." I can only say that I have been delighted beyond measure at what I have seen to-day. For more than thirty years I have been engaged in advocating this domiciliary improvement of the people; but it is not by charitable means the work can be effected. It must be done by the exertion of your own hearts and hands. You must say "We are Christians, and will live like men." I trust that this will be the commencement of a great work destined for the advancement of the social position of the people.

Some days later at the Mansion House, London, Alderman Sir Sydney Waterlow, the chairman, presided at the 18th half-yearly meeting of the Improved Industrial Dwellings Company. The report stated that the subscribed capital now amounted to £206,150, and the unallotted shares represented £43,850. The loans from the Public Works Commissioners were to the amount of £84,000 in all, of which £69,000 had been received. The rents during the half-year had brought in £9,482, and the total expenditure was £5,294, leaving a profit of upwards of £4,000. The directors recommended the payment of the usual dividend of 5 per cent., and that from the balance, (£5,332) a sum of £5,000 should be placed to a reserve fund, and invested for the equalisation of dividends. The buildings in George-street, Grosvenor-square, opened in May last, were at once filled. No less than 438 applications were received for those 38 tenements, and the directors regretted that their efforts to obtain additional sites in that neighbourhood had at present been unsuccessful. The buildings in Ebury-square were now rapidly approaching completion, and would probably be ready for occupation by the end of September. Three new and important sites had been secured during the half-year, viz., two in Commercial-road, Whitechapel, and the third close to the south-west corner of Blackfriars Bridge. A further site in Pimlico was about to be obtained. The directors would be able to erect buildings on those sites sufficient to accommodate about 1400 persons. The number of persons now occupying dwellings belonging to the company was 5,056, viz., 2,675 above 16 years of age and 2,381 children, while the number of different occupations was no less than 337. The wages earned by the tenants averaged about 28s. a week, and the rents charged ranged from 1s. 3d. to 2s. 3d. per room per week. That included every item of expenditure, and, although the rates were paid by the company, the tenant was entered in the rate-book, and retained all his local and political rights of voting.

These are the kind of objects and projects that ought to occupy the attention of our Irish M.P.s and civic magnates, instead of turning their usual meetings into schools for scandal, and making local government in this city a farce. We have Mansion House meetings in Dublin convened to ventilate political and

religious cant and bigotry, while our poor and working classes are allowed to rot out of sight in hovels and holes unfitted for either pigs, dogs, or devils.

THE SOCIAL SCIENCE CONGRESS.

In a few weeks more the annual gathering of the Social Science Congress will take place. As agreed upon last year, the meeting will take place this time at Plymouth. The following are the special questions which will be discussed. Municipal Law Section.—1. Is it desirable that defendants in criminal proceedings, and their wives or husbands, should be competent or compellable to give evidence in their own behalf, and, if so, in what cases? 2. Can a Court of International Arbitration be formed with a view to avoid war, and if so, in what way? 3. Ought railway companies and other carriers of passengers to be liable to an unlimited extent for the acts of their servants? Repression of Crime Section.—1. Is it desirable to adopt the principles of cumulative punishment? 2. What ought to be the primary aim of punishment—to deter, or to reform? 3. Is it desirable that industrial day schools should be established? Education Department.—1. How far does recent legislation render new regulations necessary for the training of teachers in elementary schools? 2. Why are the results of our present elementary schools so unsatisfactory? 3. What public provision ought to be made for the secondary education of girls? Health Department.—1. What are the principles on which a comprehensive measure for the improvement of the sanitary laws should be based? 2. What steps should be taken to guard against sewage poisoning? 3. What means can be adopted to prevent the pollution of rivers? Economy and Trade Department.—1. How far ought taxation to be direct or indirect? 2. What principles ought to regulate local taxation and administration? 3. How may the condition of the agricultural labourer be improved?

MAXIMS CONCERNING PATRIOTISM.

THE following pithy maxims were written by the celebrated George Berkley, Bishop of Cloyne, and were "First Published A.D. MDCCCL." The majority of them, if not all, are as applicable to-day as they were at the hour they were written, upwards of 120 years ago. Those who would desire to know what true patriotism means and is in reality, had better commit them to memory. Throwing them before some of our Civic patriots (?) will, we know, be tantamount to casting pearls before swine. Perchance, like the impenitent thief on the Cross, one brand may be plucked from the pyre that burns on Cork-hill. As we do not desire the death of a sinner or any number of sinners, we have exhumed the worm-eaten tome that contained the above golden maxims, that the souls as well as the public character of the great majority of our parliamentary and municipal legislators might possibly be purified by reading them:—

MAXIMS.

Every man, by consulting his own heart, may easily know whether he is or is not a patriot. But it is not so easy for the bystanders.

Being loud and vehement either against a Court or for a Court, is no proof of patriotism.

A man whose passion for money runs high bids fair for being no patriot. And he, likewise, whose appetite is keen for power.

A native than a foreigner, a married man than a bachelor, a believer than an infidel, have a better chance for being patriots.

It is impossible an epicure should be a patriot.

It is impossible a man who cheats at cards or cogs the dice should be a patriot.

It is impossible a man who is false to his

friends and neighbours should be a true patriot.

Every knave is a thorough knave, and a thorough knave is a knave throughout.

A man who hath no sense of God or conscience—would you make such a one guardian to your child? If not, why guardian to the State?

A sot, a beast, benumbed and stupified by excess, is good for nothing, much less to make a patriot of.

A fop or man of pleasure makes but a scurvy patriot.

A sullen, churlish man, who loves nobody, will hardly love his country.

The love of praise and esteem may do something; but to make a true patriot there must be an inward sense of duty and conscience.

Honesty (like other things) grows from its proper seed—good principles early laid in the mind.

To be a real patriot, a man must consider his country as God's creatures, and himself as accountable for his acting towards them.

If *pro aris et focis* be the life of patriotism, he who hath no religion or no home makes a suspected patriot.

No man perjures himself for sake of conscience.

There is an easy way of reconciling malcontents—*sunt verba et voces hunc lenire dolorem, &c.*

A good groom will rather stroke than strike.

He who saith there is no such thing as an honest man, you may be sure is himself a knave.

I have no opinion of your bumper patriots; some eat, some drink, some quarrel, for their country. MODERN PATRIOTISM!

Ibycus is a carking, griping, close-fisted fellow. It is odd that *Ibycus* is not a patriot.

We are not to think every clamorous haranguer, or every splenetic repiner against a Court, is therefore a patriot.

A patriot is one who heartily wishes the public prosperity, and doth not only wish, but also studies and endeavours to promote it. [Civic jobbers, think well on't.]

Gamesters, fops, rakes, bullies, stock jobbers—alas! what patriots!

Some writers have thought it impossible that men should be brought to laugh at public spirit. Yet this had been done in the present age. [And is done still.]

The patriot aims at his private good in the public. The knave makes the public subservient to his private interest. The former considers himself as part of a whole, the latter considers himself as the whole.

There is and ever will be a natural strife between Court and country. The one will get as much and the other give as little as he can. How must the patriot behave himself?

He gives the necessary. If he gives more, it is with a view of gaining more for his country.

A patriot will never barter the public money for his private gain. [Except he be a Civic patriot!]

Moral evil is never to be committed; physical evil may be incurred, either to avoid a greater evil, or procure a good.

Where the heart is right there is true patriotism.

In your man of business, it is easier to meet with a good head than a good heart.

A patriot will admit there may be honest men, and honest men may differ.

He that always blames or always praises is no patriot.

Were all sweet and sneaking courtiers, or were all sour malcontents, in either case the public would thrive but ill.

A patriot would hardly wish there was no contract in the State.

Ferments of the worst kind succeed to perfect inaction.

A man rages and rails. I suspect his patriotism.

The fawning courtier and the surly squire often mean the same thing—each his own interest.

A patriot will esteem no man for being of his party. [Note well.]

The factious man is apt to mistake himself for a patriot.

[A copy of these incomparable maxims ought to be hung up in Westminster and in every town hall in Great Britain and Ireland. In respect to Dublin, we fear it would need more than the brush of the painter or the type of the printer to impress them upon the minds of our corporators. Unless cut deeply into the stone of our City Hall, the characters would disappear long before the "characters" who removed them were able to redeem their characters.]

RAILWAY ACCOMMODATION AND TRAFFIC.

THE new system inaugurated in the spring by the Midland Railway in England, has been productive of important benefits to the entire community, the railway companies themselves being the chief gainers by the change. The providing for third-class passengers to be conveyed by nearly all trains during the day, instead of having to wait from night until morning and from morning till night was a change long desired, and should have taken place some years ago. The receipts from passenger traffic in consequence of the change is shown as follows. On the London and North Western line the increase amounts to £3,705 per week; on the Great Northern, £1,733; on the Lancashire and Yorkshire, £1,140, and on the Midland itself, £1,506. Here is encouragement for other English and Irish lines to follow the good suit, instead of crawling on from bad to worse.

The whole traffic receipts of the railways in the three kingdoms for the week ending August 9, upon a mileage of 14,025½ amount to £1,095,502, being equal to £75 2s. per mile. For the corresponding week of last year the receipts were £1,033,585, the number of miles open 13,951½, or £74 3s. per mile. A comparison of the two weeks shows an increase in the aggregate receipts of £61,917, and in the number of miles open of 74½. On the lines having termini in the metropolis the increase has been—on the Metropolitan District, £901; Great Eastern, £367; Midland, £6,662; Great Northern, £4,515; London and Brighton £4,588; London and South-Western, £4,316; London, Chatham, and Dover, £1,218; Great Western, £6,244; London and North Western, £8,108; South-Eastern, £358; and London, Tilbury, and Southend, £464. But there has been a decrease on the Metropolitan of £161; and on the North London of £389. On the other principal lines in England and Wales there has been an increase on the Lancashire and Yorkshire of £2,151; on the Manchester, Sheffield, and Lincolnshire of £3,468; on the North-Eastern of £1,617; on the Bristol and Exeter of £451; on the Cornwall of £158; on the Taff Vale of £2,026. But there has been a decrease on the North Staffordshire of £309; and on the South Devon of £25. In Scotland, the Glasgow and South-Western shows an increase of £5,866; the Caledonian of £2,775; and the North British of £5,886. In Ireland, the Great Southern and Western shows an increase of £501; the Midland Great Western of £320. But there has been a decrease on the Dublin, Wicklow, and Wexford of £988.

The Irish railways have never been properly worked, and we fear that they will not until they undergo a change of directors or are purchased by the State.

"REDTAPEISM AND TAXES IN BROOKLYN."

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I observe in your issue of the 1st an article under the above caption, which is calculated to mislead parties into thinking the public affairs of the city of Brooklyn are unusually embarrassed by redtapeism. At the last election we were successful in removing from office many corruptionists, and abolishing offices held as sinecures only. The paper from which your extracts are made is the principal organ opposed to this reform movement; and as some confusion is inevitable from such sudden changes, it is quite inclined to make the most of what at any rate can only be a temporary inconvenience, if it exists at all.—Yours, &c.,

J. E. YOUNG.

181 Dean-st., Brooklyn, N.Y.

L A W.

ACTION AGAINST A BUILDER.

COUNTY KILDARE ASSIZES.

(Before Mr. Justice O'Brien and a Common Jury.)

Walter Rickard v. Matthew Echlin.—This was an action brought by Walter Rickard, of Lusk, against Matthew Echlin, builder, Rush, for breach of contract in building a farm-house and offices. The damages were laid at £500. The plaintiff having obtained an advance of £400 from the Board of Works for the erection of a farm-house at Oberstown, Lusk, entered into a contract with Mr. Echlin to build it in a permanent and workmanlike manner, according to plans and specification prepared by defendant and approved of by the Board of Works. There were also other counts—quarrying stone on plaintiff's land without permission, &c. The Inspector of the Board of Works having certified that everything had been properly done, plaintiff in January last entered into occupation of the house, and since then he complained that the roof leaked, the ceilings were cracked, the plaster on the walls had not dried, and that the work altogether had not been completed in a satisfactory manner, &c. The contract consisted merely of estimates furnished to plaintiff by defendant, which the learned judge ruled, in conjunction with the plans and specification, were sufficient to form the contract. Messrs. E. O'Reilly, John L. Robinson, George Parrott, and — Smith were examined to prove that the house was built in an unsubstantial manner, and was not in accordance with specification, and considered it would take £102 to put it in order. Mr. J. J. Lyons and Mr. Regan were examined on the part of defendant. After a hearing of four days the jury returned a verdict for the plaintiff with £122 damages, and costs.

Counsel for plaintiff, Dr. Battersby, Q.C., and Mr. Houston, LL.D., instructed by Mr. Stone. Counsel for defendant, Messrs. Walker, Q.C., and J. A. Curran, instructed by Mr. C. Fitzgerald.

GAS AT THE GAIETY.

Anne F. Anderson v. John and Michael Gunn.—Action brought to recover a sum of money alleged to be due as balance on account of a contract in connection with the building of the Gaiety Theatre in Dublin. Plaintiff brought her action as administratrix of the late Robert Anderson, gas-fitter, of Lower Ormond-quay. It appeared that the late Robert Anderson entered into a written contract to do certain gas-fittings in the Gaiety Theatre for a sum of £240, but for the variations and omissions a further sum of £345 19s. 7d. was charged. Credits to the amount of £277 15s. 6d. were admitted. Defendants contended that a sum of £79 9s. 8d. was deducted on account of the variations and omissions, leaving a balance on the first item of £160, of which a sum of £104 was alleged to be paid before the action was brought. As to the larger sum it was pleaded that £100 were brought into court; and as to the residue, £196 9s. 11d., defendants deny the cause

of action, pleading besides a set-off, in the shape of goods supplied to plaintiff's use, by reason of plaintiff's late husband using in his contract work the fittings used in the temporary fittings, for which latter separate charges were made. Defendants also pleaded a credit of £112 16s. 11d. against the contract work, in addition to the pleading of reduction. The question to be tried, according to defendants, would be whether these temporary fittings were used in the contract work, and how far they were used. This could only be determined by professional witnesses. The defendants had lodged in court £100, which they alleged was considerably over what was due. The case was one of details, and was finally referred, at the suggestion of his lordship, to the Master, the jury finding a verdict in blank for plaintiff, this verdict to be changed into one for defendants if nothing is found to be due.

CIVIC LYRICS.—No. XIX.

THE UN-SANITARY QUORUM.

Who is Buncombe?—that's a poser;
Who is Fustian?—that's the same.
What he is there's no one knows, sir,
Save that he's a great proposer,
Trading on his country's shame.

Who is Ramrod?—that's a puzzle;
Who is Trigger?—that's the same.
Did he face the cannon's muzzle
Ere he took to feed and guzzle,
With a T.C. to his name?

Who is Clodpole?—that's a riddle;
Who is Bogtrot?—that's the same.
He can span the "Claimant's" middle,
"Square the circle" on the griddle,
Or play any other game.

Who is Puddle?—that's a query;
Who is Mudlark?—that's the same.
O'er effluvia he is merry;
Dogs or dead cats he'll not bury,
But will float them down the stream.

Who is Gammon?—that's no matter;
Who is Potheen?—that's the same.
Once he stood for Stony-batter,
When nobody knew his hatter—
Now he's on the road to fame.

Guess, "Home Ruler," Whig or Tory,
Right or wrong it's all the same;
All the heroes of our story
March through gutter on to glory,
And all have an equal claim.

CIVIC.

THE BRITISH ARCHÆOLOGICAL ASSOCIATION.

THE twenty-ninth annual meeting of the above association took place at Wolverhampton on Monday, the 5th, under the presidency of the Right Hon. the Earl of Dartmouth. The mayor and corporation of the town made all the necessary arrangements for the reception of the archæologists. On Tuesday the site of the Roman City Eboracum, on which the town of Wall stands, was visited, and a paper was read by Mr. W. Molineux at the scene of the excavations now being made. Elford Church was afterwards visited. On Wednesday, Long Birch was visited, Giffard's Cross, and Brewood Church, where the monuments of the Giffard family were examined. Mr. Harrison Ainsworth read a brief paper on Boscobel, a place of historic interest. On Thursday an evening meeting took place in the Town Hall, under the presidency of Mr. J. R. Planche. A paper was read by Mr. J. C. Tiddesly "On the Earlier Industries of Staffordshire." On Friday the association was received at the Stafford railway station by the mayor of that borough. His worship conducted the party to St. Mary's Church. Uttoxeter was subsequently visited, and then Croxden Abbey, where a paper on the foundation was read by Mr. Gordon M. Hills. On Saturday the association went to Dudley, where the party was received at the Institute and Museum by the mayor and corporation. The corporation led them to the Castle, where Mr. Roberts, one of the honorary secretaries, pointed out the leading features of the priory, and read a paper upon the Castle. In the evening the association was officially enter-

tained at the Town Hall. Several interesting papers were read. We regret we have not room to give some of these papers in our present issue, and it only remains for us to say that the twenty-ninth congress of the British Archæological Association terminated happily, resulting in many new friendships, and additional historic and antiquarian and industrial information.

NOTES OF WORKS.

A villa residence of ornamental design, with frontage of 41 ft. by depth of 44 ft., is being erected at Dalkey, in a position commanding extensive views of the bay, Howth, Killiney, &c., for Anthony O'Neill, Esq., T.C. The internal arrangements comprise reception and drawing rooms, parlour, large hall and staircase, bed and bath rooms, culinary offices, cellarage, &c. There will be a handsome garden front visible from the railway station. Mr. J. J. Lyons is the architect.

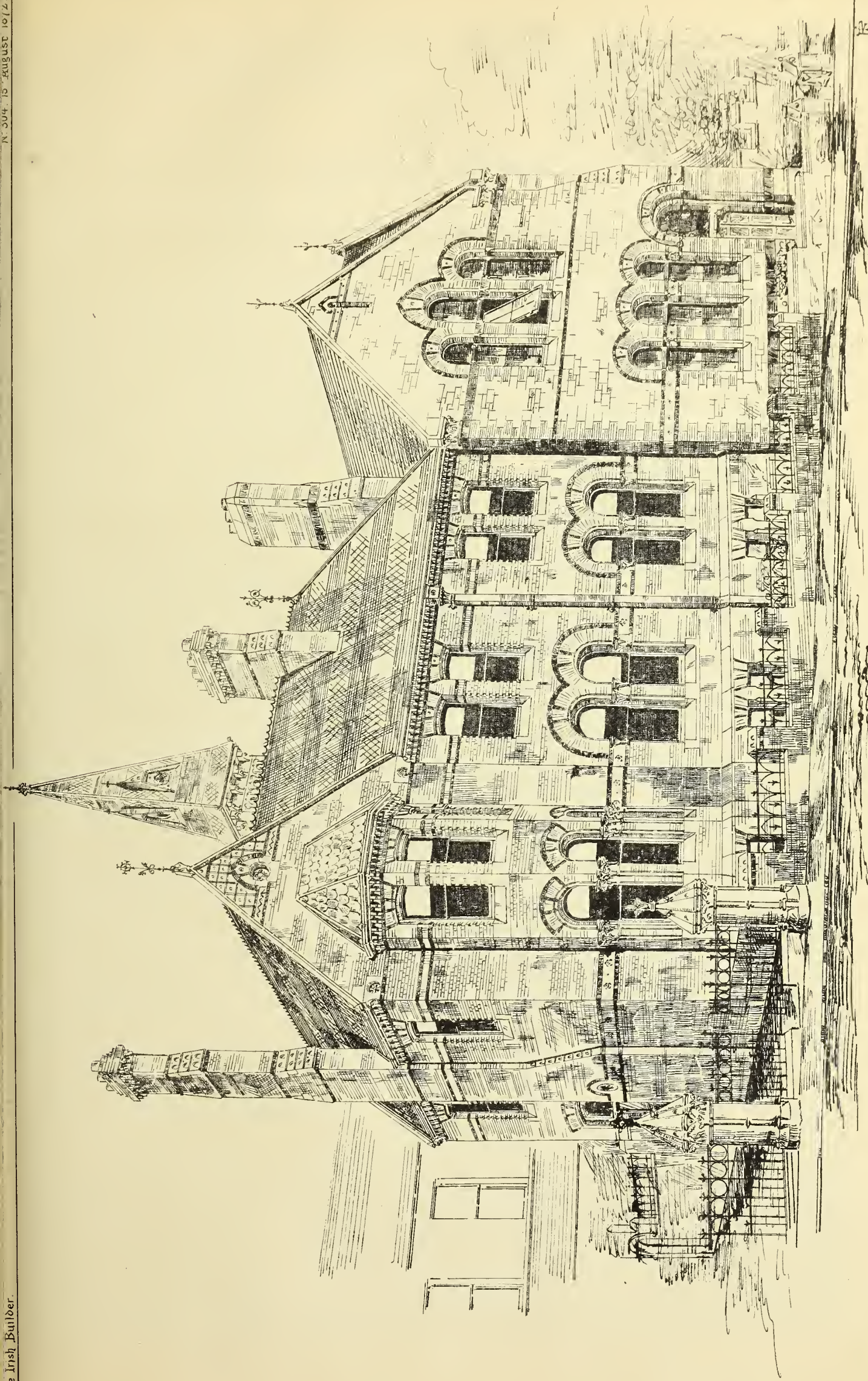
The new Roman Catholic "Church of the Sacred Heart" at Killowen, near Rostrevor, was consecrated on Sunday last by His Eminence Cardinal Cullen. The new building occupies a site contiguous to where the old barn-like structure stood, and is within a couple of hundred yards of the shores of Carlingford Lough.

A new church for the "Primitive Methodist Connexion" will be opened on next Sunday, in Lower Abbey-street. The trustees having purchased the detached house at the corner of Northumberland-square, they took steps to have it enlarged and suitably altered for the purposes of a place of worship. This is now the sixth church to be met with in a ramble down Lower Abbey-street.

THE SANITARY CONDITION OF DUBLIN.

THE Lord Chief Justice, at the opening of the commission a few days ago, made some pertinent observations as to sanitary matters in this city, and the means that ought to be taken to effect a speedy reform of the present disgraceful condition of our city. We agree in a great measure with his lordship's remarks, but we entirely differ with him in the opinion expressed in one part of his address where he is reported to have said—"The authorities have, I believe, been fairly active." We do not doubt in the least that the officials of the Corporation and some of the council have been more than usually active, but not, assuredly, in a sanitary direction, as friend and stranger may see for themselves. The city and its back lanes, streets, sewers and rivers are in a disgraceful state, and have been for a considerable time, with all likelihood of growing worse, if left altogether to the care of our local authorities. On this occasion we will, however, allow his lordship to state the case, which he does in what follows:—

"I must express my satisfaction that, in reading over the papers laid before me, I did not find a case either in county or city connected with what are called strikes or combinations of labour against capital. I hope this denotes the existence of an amicable feeling between the working classes and the employer, and I heartily wish that such good feeling may continue. The greatest calamities have been brought upon the working classes in this city, and the manufacturers also, by unlawful and perverse combinations against capital and those who would invest it in useful enterprises; and when employment is abundant and wages high, the working classes of our city and county will, if they be wise, avail themselves of their advantages, and improve the condition of themselves and their families. Gentlemen, it is said that a city where the inhabitants are healthy and comfortable will be found comparatively free from crime. I cannot conclude my observations without congratulating you upon the pleasing report which has reached our ears, that the pollution of the Liffey is about to cease—that is, that the good work of intercepting the mass of filth which is discharged into that once bright and sparkling stream will soon commence. This will not be an hour too soon, as I can testify; for, having recently returned from the pure air of Kildare, I was,



R.

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in passing along the quay about 10 o'clock at night, affected by a smell more odious than (although not wholly unaccustomed to the odours of the Liffey) I had ever before experienced. It will be matter for the curious inquirers into the causes of epidemics, hereafter to discuss how it was that our citizens have so long endured a pestilential cesspool in the midst of a beautiful city, and the effects will be traced to the true causes which produce them. It will redound to the fame of those who have given us an abundant supply of fresh and pure water from the Vartrey, if they, by their exertions, shall enable industrious men to live upon the banks, and fish to exist in the waters of the Liffey. Gentlemen, sitting in the Queen's Bench, I have had opportunities of forming an opinion on the sanitary laws under which this city is governed. The authorities have, I believe, been fairly active, and it has happened that persons convicted have applied to the Queen's Bench to quash the convictions upon points of law. We have sometimes been obliged reluctantly to do so. These sanitary enactments are too technical and too complicated for easy and practical use, and from a statement made in the Queen's Bench I should say there was no city in the world in which sanitary laws and sanitary improvements were more essentially required than in Dublin. Gentlemen, that statement was that in the dwelling-houses, against the proprietors of which the conviction was sought to be enforced, forty persons have in one house suffered from fever and infectious diseases. I take leave to say that while such a state of things can exist the clergy may preach, the doctors prescribe, and the hospitals may be full, but the epidemic, whatever be its form, will rage amongst us. The preventive is a true measure to pursue; the hospital is a secondary resource, and may, perhaps, cause other evils in curing the perilous malady; and until the dwellings of the working classes and of the poor in the city are looked after in a widely different manner from that in which they are now regarded, I repeat the epidemic must decimate the people. Nor does this practical subject concern only the working classes. Death is very impartial, as we have seen during the late—I am happy to say—epidemic. It has been said that pale death knocks at the door of the peasant's hut with no louder summons than at the palace gate of the prince—*Pallida mors æquo pulsat pede pauperum tabernas regumque turres*. I have just read that we must expect another epidemic worse than the one now dying out amongst us. If it is to be averted, we must be up and doing—our sanitary laws must be amended and improved, our city cleansed, our river purified, and, above all and beyond all, the dwellings of the poor ameliorated and improved. Gentlemen, great fortunes have been realised in the Liberties of this city, and by good and zealous men, but if you, as a jury of benevolent inspectors, were to explore the lanes and alleys of those Liberties, where our fellow-creatures herded together, you would start back affrighted at the dismal spectacle. Yes, the poverty-stricken inhabitants bear their privations patiently; but there are numbers of artisans receiving good wages, and able to pay for suitable accommodation if they could get it. A mason lately swore, on a trial in the Queen's Bench, that his wages were 5s. 4d. per day. Such a workman could very well spare 4s. or 5s. a week for a suitable dwelling for his family; but what return will he get for his money? But, need we penetrate into the Liberties of our city for an example of our sanitary condition? Within five minutes' walk of where you sit are to be seen sights almost as bad. Whoever has walked through Pill-lane on a wet and wintry day, and beheld human beings, indifferently clad, sitting in what is called a market, in wet, slush, filth, and every form of discomfort, with slaughterhouses contiguous to narrow lanes, may find out by the evidence of his senses the sanitary measures required in preservation of health and life in this populous and important city. I notice at this moment that a working class association, headed by that eminent philanthropist and zealous friend of the artisan—Lord Shaftesbury—have resolved to erect 1,200 houses in the suburbs of London for the accommodation of men, not as beggars, but for those who can and will pay for what they get—namely, the working classes of a crowded community. Gentlemen, I perceive some humane gentlemen in your city have resolved to form a sanitary association here. They may be certain that the most indefatigable Attorney-General will never prosecute a conspiracy against dirt. An association to improve the health, habits, dwellings and sanitary laws affecting the bulk of the people will be honoured, and I hope supported in their christian efforts. Cleanliness is a Christian duty; and further—which touches us sitting here—if the decencies of life can be secured to the working people, health promoted, and intoxication diminished, there will be at each successive com-

mission fewer criminals to be tried, thus verifying the great truth, that prevention is better than cure or punishment."

BOOKS RECEIVED.

Health and Comfort in House Building; or, Ventilation with Warm Air by Self-Acting Suction Power. By J. Drysdale, M.D., and J. W. Hayward, M.D. London: E. and F. N. Spon.

This work, the joint production of two medical gentlemen, will be found to embrace a valuable addition to our stock of Sanitary Knowledge. "They have," say they, "devoted much time and thought to the subject of House Building; and, in the hope that the fruits of their reflections may afford some suggestions of practical value, they offer the following pages to the public." They have put theory to the test of practical experience, by having built for themselves houses in accordance with their ideas of perfect systems of warming and ventilation. In an appendix are given several tables and formulae which will be of great service to the uninitiated and those already technically instructed. At the end of the work are six well-executed lithographed plans.

Spon's Tables and Memoranda for Engineers. London: E. and F. N. Spon.

This tiny book of eighty pages should certainly find its way into the vest pocket of every engineer and contractor.

CHICAGO REBUILT.

CHICAGO was burned about nine and a half months ago, and the remarkable energy shown in rebuilding the city is attracting general admiration. The reports of the destruction stated that 98,500 people were left homeless, of whom 74,500 resided in 13,300 buildings on the north side, where every home was consumed on a surface covering 1,470 acres. The report now comes that dwellings for 70,000 people have already been built in that division of the city. In the south division, where the hotels, theatres, warehouses, shops, and stores, were located, and mostly destroyed, 3,650 buildings were burned on 460 acres, and it is announced that the ground on the burned district is now nearly covered, while the buildings completed and those under construction are said not only to outnumber, but also to exceed in style, value, and solidity those that were burned. Twenty-six miles of streets already are re-occupied. For three months after the fire but little work was done, and then the winter came, impeding operations to some extent, but still the work went on. Over all the burned districts derricks are said to stand up like the masts of shipping. Five hundred buildings were burned in the west division, and in this single district as many permanent buildings and blocks have been erected as during any previous season was the case in all Chicago. The *Chicago Tribune* says that, notwithstanding labour troubles elsewhere, the workmen in Chicago have this season refused to strike on any pretext; that the ordinary business of the city has been unprecedented; that since April last the savings banks' deposits have increased nearly 2,000,000 dols.; and that at no time has money for commercial or building purposes been scarce. The *Chicago Times* says there is no decrease in the number of new buildings begun each week, and that on all sides, besides the completing of structures, excavations for new buildings and the laying of new foundations is going on. In the burned district it says there is hardly a vacant lot where it is not the intention of the owner to begin operations this season, and by the 9th of October, the anniversary of the disaster, it says they will be able to show the world "a stupendous city raised out of its own ruins in a year." Besides rebuilding, Chicago has done more. About 12 acres of land have been reclaimed on the lake front at a cost of about 200,000 dols, an acre, and these are being

built upon. The grade of many low streets in the city has also been raised by the use of material from the ruins. These two tasks alone are great enterprises. Chicago rebuilt will not much resemble the old city, and the work now going on there is a fine exhibition of American energy.

DUBLIN AND DROGHEDA RAILWAY.

THE directors of this company have a very favourable report to lay before the shareholders at the forthcoming half-yearly meeting. The following passages occur therein:—

From the accounts it appears that the net profit, after providing for working expenses, interest on loans, and dividends on preference stocks, is £23,235 9s., out of which the directors recommend a dividend on the ordinary stock of the company at the rate of £5 10s. per cent. per annum, less income tax. This dividend will amount to £19,034 10s. 9d., and will leave a balance of £4,200 18s. 3d. to the credit of current half-year. The goods and cattle traffic shows an increase in the past past-half year at the rate of 10½ per cent., which is considerably above the usual rate of increase. In the passenger traffic, we regret to say, there has been some falling off. There has been a general increase in the working expenses in every department, owing to the rise in cost of labour and materials, and the high price of coal and iron must further increase the working expenditure on railways. With a view to meet this, we have carried over a larger balance than we did at the corresponding period last year. The expenditure on capital account during the half-year was £1,121 19s. 9d., and was chiefly for additional rolling stock to accommodate the increasing goods and cattle traffic. It will be necessary also in the current half-year build some additional rolling stock, for which we have estimated that £1,130 will be required. We opposed in Parliament a bill for making a Central Station, as the proposed station was entirely unsuitable for the use of this company, and the bill proposed to take the land which we have long set apart for the purpose of improving our present terminus. After a protracted contest the bill was thrown out, and a bill authorizing the Great Southern and Western Company to extend its line to the North-wall, passed. This latter line will supply the means of sending traffic, without change of carriages and wagons, between the north and south of Ireland. We have long felt that it would be most desirable to improve the approach to our Amiens-street Station, and get rid of the inconvenience which is necessarily attendant on carrying the passengers' luggage up and down stairs. With a view to remedy this evil we have applied to the Port and Docks Board to give us an approach through a portion of their premises, and are glad to be able to state that that board, considering it a matter of great public interest, have kindly consented to sell us a right of way at a fair price, provided we obtain an Act of Parliament enabling us to purchase it. We think we would not be doing our duty to the public using your railway if we omitted this opportunity of effecting so important an improvement, and therefore, we propose with your approval to apply for an act in the ensuing session, for this purpose.

DUBLIN CORPORATION ESTATES.—Mr. Francis Morgan has prepared a report relative to the preparation of a private bill for the better management of the Corporation estates. The objects which he proposes to accomplish are the commutation of leases for lives into leases for years, the sale of city estate for payment of city debentures, power to enclose and reclaim part of the North Liffey wet-acre lots, containing about 55 acres lying between Donnycarney and the Dublin and Drogheda Railway. Power to sell rents of Wide Street Estate, and apply proceeds to widen streets, according to Dublin Improvement Act, 1849, sec. 60. Power to sell the holdings on Circular-road Estate, and apply proceeds to Improvement Fund, in aid of repairs of Circular-road; and power to agree with the owners of the land comprising Richmond Bridewell, South Circular-road, and enable the owners to sell or grant same for ever to the Corporation.

THE LARGEST WELL IN THE WORLD, —THE METHOD ADOPTED FOR SINKING IT.

An independent supply of water being found necessary for Prospect Park, Brooklyn, the commissioners had a careful geological survey made of the ground, and with such successful results that the park is now watered with water pumped from a well that in size and amount of flow may safely challenge the world for a rival. The following particulars of the means adopted for sinking it are from a report supplied by the Engineer, Mr. C. C. Martin, to the Park Commissioners:—

The method of sinking the well having been determined upon, the work was commenced as follows:—An excavation about 60 ft. in diameter was made to a depth of 7 ft. Pieces of plank 3 ft. long, 10 in. wide, and 2 in. thick, were then laid upon this bottom at intervals of about 3 ft. from centre to centre upon a circle of 54 ft. in diameter, and the whole carefully levelled. A band of wrought iron, 54 ft. in diameter, $\frac{1}{2}$ in. thick, and 22 in. wide, was then obtained and placed upon this ring of plank. The band was made of sheets about 14 ft. long, the ends of which were placed together, forming butt-joints; over these ran covering plates, 3 ft. long, and double counter-sunk rivets were used to secure them. These having been put in place and brought to a true circle, a ring of oak timber, 11 in. thick, 11 in. wide on the top, and 2 in. wide at the bottom, was placed inside of the iron band, the thin edge resting on the short plank, and being in contact with the iron. This was securely fastened to the band by means of bolts and spikes. Upon this was laid another ring of oak timber 6 in. thick and 24 in. wide, the inner diameter of the ring being 50 ft. These two rings were securely fastened together by spikes 10 in. long and $\frac{1}{2}$ in. square. Seven courses of oak of the same dimensions as the last were then laid up, making a total depth of timber of 4 ft., the whole securely spiked and bolted. The iron band reached to the top of the second 6-in. course of timber, and the third course projected over its edge so as to come flush with the outside of the iron, thus forming a shoulder against which the iron could press, and which would prevent its being forced upon the outside of the curb. Forty holes were then bored through this 4 ft. of timber to receive the rods of $1\frac{1}{2}$ in. round iron, which were 16 ft. long. These rods were passed through this mass of timber, and were held in position at the top by a turn-plate. The wall of brick masonry, 2 ft. thick, was then commenced upon this wooden curb, and carried up to a height of 10 ft., where four layers of pine timber, each 6 in. thick and 16 in. wide, were introduced. These were placed in the centre of the wall, and the iron rods passing through them were securely bolted down with heavy washers and nuts. The wall was now 16 ft. high, besides the cutting edge, which projected 10 in. below the main wall, and was securely bolted together. While this was being done, a suitable derrick had been obtained, and so placed that the boom would swing over the wall and command the interior space also. Iron buckets for hoisting out the sand, and a six-horse power hoisting engine, were procured. Work was then commenced upon the excavation. The material from within the wall was excavated and thrown into the iron buckets, and was then hoisted out and taken away. The excavation in the centre was kept below that at the sides, and, when sufficiently advanced, the material from immediately under the wall was removed. This was done with considerable care and uniformity, and, as the excavation progressed, the wall slowly and quietly settled down. This process was continually repeated until the wall was lowered 41 ft., when frost suspended operations. At the same time that the excavation was going on within the well, the masons were at work carrying up the wall. The iron rods were extended within this wall

to its top, but their size was reduced to 1 $\frac{1}{2}$ in. diameter. The brick wall had a battu towards the centre of half an inch per foot. The object of this was to prevent the wall from binding or getting wedged by the pressure of the earth. The result was as anticipated. The wall regularly and uniformly settled as the excavation was made.

The work progressed satisfactorily until the bottom of the curb was about 3 ft. below the water surface, when it was found to be impossible to make the excavation under the curb uniformly. The curb did not settle evenly, and cracks were produced in the wall, also an unequal pressure from the material on the outside was thrown on the wall, which produced an eccentricity of about 2 ft. in the diameter of the wall. This wall was allowed to remain in the position last indicated. Another curb similarly constituted of timber, brick, and iron was constructed, the interior diameter being 35 ft., the walls 2 ft. thick, and the height 10 ft., besides the cutting edge, which is of wood, and projects below the main wall 1 ft. This curb or wall was lowered in a manner similar to the first, until its top was 1 ft. below the surface of the water, giving a depth of 12 ft. of water in the well. Work was suspended at this point, as the depth of water obtained was considered sufficient.

The method of making the excavation under water was somewhat novel and entirely successful, reducing the expense of that portion of the work very materially. A cylinder 20 in. diameter and 40 in. long, with a closed top, was made of $\frac{3}{8}$ -inch boiler iron. The whole was made air-tight except the bottom, which was left entirely open. In the top were two valves opening upward. The lower edges of the cylinder were made thin and sharp. Attached to the top was a timber or stem 6 in. square and 18 ft. long, and at the top of this a suitable attachment was made for a hoisting apparatus. The tackle of the derrick was made fast to this, and the cylinder was lowered away into the water, the valves were forced open, and the air escaped. As soon as the cylinder touched the bottom, the stem of the cylinder was worked backward and forward, thus forcing the cylinder into the sand by its own weight. When full of sand, the valves were closed, and the whole hoisted out. As soon as the cylinder was lifted above the water, it was swung to one side, the valves opened, and the contents discharged upon the platform constructed for the men to work upon. The cylinder has a capacity of 7 cubic feet, and, on an average, 5 cubic feet of sand was lifted at each time, and a charge could be brought up every two minutes. The apparatus seemed to work as well in 16 ft. of water as in shallow depths.

THE IRON AND STEEL INSTITUTE.

The first of a series of annual meetings, which promise to be productive of important benefits, was held on Tuesday evening, 3rd inst., in Glasgow. The business was commenced by the President, Mr. Bessemer, who introduced the Lord Provost, who occupied the chair. The following gentlemen were elected office-bearers, viz.:—President elect, J. Lothian Bell; Vice-Presidents, Messrs. Edward Williams, W. Menelaus, J. T. Smith, C. W. Siemens, H. Sharpe, Walter Nelson, and Hunter.

Interesting papers on the following subjects were read and discussed, viz.:—"On the Geological Position and Features of the Coal and Ironstone bearing Strata of the West of Scotland," by James Geike, Esq.; and one on "The Rise and Progress of the Iron Manufacture of Scotland," by John Mayer, Esq. This concluded the public proceedings of the day.

A number of public works were inspected by members of the institute. Numerous models of subjects connected with the iron manufactures of Scotland were exhibited in the spacious rooms.

On the following day a very able and satis-

factory paper on "The Rise and Progress of the Iron Manufacture of Scotland," adjourned from Tuesday evening, was read by John Mayer, Esq., in which the origin of the principal ironworks was described, including the Carron in 1760, Boname in 1763, the Clyde in 1788, the Calder in 1801, and the Shotts in 1802. The average yield of iron is 150 tons per furnace weekly, and the gross amount in 1870 reached 1,206,000 tons; last year the yield was rather less. The stock of bar iron now on hand is about 200,000 tons; of malleable iron the yield last year was 200,130. Mr. J. D. Napier read his paper on "Differential Gear for Reversing Rolling Mills," and Mr. Graham Stevenson read one on "Reversing Rolling Mills," the merits of which were vigorously discussed. Mr. Menelaus and Sir John Allen especially spoke in high terms of Mr. Napier's invention, which the former gentleman said he believed would prove the very best machine for rolling iron ever invented, and that he would prefer it to any other.

After the meeting closed a large party of the members started by special train from the Caledonian Station to visit the ironworks in the neighbourhood of Coatbridge, Gartsherrie, Summerlee, and Monkland, and M. Dormoy's revolving rabble at the North British Ironworks, Coatbridge, and Messrs. Baird and Co.'s coal-cutting machine in operation.

The concluding public meeting took place on Thursday, Dr. A. K. Irvine, of Glasgow, read a valuable paper "On a New Safety Lamp," the nature of which is to indicate by sound the presence of explosive mixtures of gas and air, based on a new form of singing flame; also a fog horn on the same principle. A number of experiments were made and model lamps exhibited, illustrative of their working, which gave universal satisfaction, and called forth the thanks of the meeting.

Mr. Lauth, of Pittsburgh, next read an excellent paper on "Lauth's System of Rolling Iron by three high rolls," instead of by two, as in this country. These are capable of turning out 30 to 40 tons of plate in twelve hours. An animated discussion followed, in which it was contended that the three high rolls "were not properly adapted for rolling rails in this country owing to the great variety of gauges, &c., required." In proposing a vote of thanks to Mr. Lauth, Mr. Bessemer expressed a hope that the engineers of this country would adopt a uniform system of rails, say of a narrow, a medium, and a broad gauge. Other excellent papers were read.

THE ROYAL ARCHÆOLOGICAL INSTITUTE AT SOUTHAMPTON.

The inaugural meeting of this institute took place at the Hartley Institution, on the 1st inst. Lord Talbot de Malahide, in the absence of an ecclesiastical dignitary, acted as president. The Mayor (Mr. Buchan) opened the proceedings, expressing the agreeable pleasure it was to him to welcome the learned body to Southampton.

Lord Talbot said that no one could expect from him an address which could adequately do justice to the details of the interesting subject they were about to inspect. He had, however previously visited the district, and that many of its chief subjects were known to him was evident from the felicitous terms in which he noticed them. Especially happy were his remarks upon the part that Winchester had played in the development of Gothic architecture and in the record of English history. Happy, too, was his allusion to the New Forest, planted by the second monarch of his line, which, after furnishing for ages the timber for our navy, remained to-day a place of beauty and a source of enjoyment to all.

Archdeacon Jacob entered at some length into the much-vexed subject of the removal of the tomb of William Rufus in Winchester Cathedral, evidently showing that he had

keenly felt the acerbity of some of the remarks which had been made ever so long since. He stated now that, with the increase of the number of the youths at the college, the tomb, standing at an inconvenient place, had become an obstacle to proper locomotion; had become, as he expressed it, not an eyesore, but a footsore; how he had asked himself before he touched it, Are the bones there? If so, are they those of William Rufus? If the tomb be empty, why should it stand in the way? It was thus he dared to open it to settle an historical fact, as well as a modern necessity. It was opened—there were bones in it. But clearly the tomb had previously been rifled. There were legends that the Parliamentary forces had desecrated it; it might be so. The bones, however, were taken out; were laid on the pavement of the cathedral. The stature of the man was then estimated from them as comparable with the stature of other men; and the conclusion was come to that they were the bones of the king. It next was demonstrated that the tomb had already been moved; it was shown that it had been brought from outside the church, and therefore he concluded that for the general convenience he was justified in removing it again to a place where it would be honoured instead of trampled on; for the church was an edifice for the living and not for the dead.

Sir Edward Smirke acknowledged the welcome, and then Lord Henry Scott offered the congratulations of the landed gentry of the county, dwelling with natural pride on its many attractions, and promising everywhere welcome. Dr. Bond followed on behalf of the local societies. The Marquis of Bristol acknowledged the reception on the part of the institute, and after a short adjournment a perambulation of the town was made, under the able guidance of Mr. J. H. Parker, of Oxford.

In the evening the archæologists dined together at the South-Western Hotel, saving those, and they were many, who had accepted the private hospitality of residents. The Mayor and Mayoress gave a soiree at eight of a very brilliant character at the Hartley Institution, when the temporary museum, arranged under the management of Mr. W. R. Crabbe, was for the first time opened to the congress.

On Friday and Saturday several visits were made to places of interest in the district, by a party of the archæologists who were everywhere most kindly received by the gentry and landed proprietary. The conclusions arrived at by the exploring party through the town of Southampton under the guidance of Mr. J. H. Parker may be stated thus:—The old town of Southampton is still remarkably well defined by an almost complete series of mural ruins, portions of which remain in an unusually perfect condition, so that the forms and objects of the various portions can be well and intelligibly made out. At the present time, it is embedded in, or perhaps may rather be said to form a corner of the new town, which is, at least, twenty times greater in extent. Its length and precise situation are well marked by the High-street, which was originally its high street or main thoroughfare, and with which the exact length of the fortifications corresponds, "Above-bar-street" being extramural to the original municipality. The northern walls were at right angles to the High-street, forming with it the upper bar of a T, and are still to be traced along Orchard-street on the one hand, and through courts and back yards, parallel with Hanover-buildings, on the other, up to the "Strand." Between the Strand, Canal Walk, and Terrace, and the narrow way called the "Back of the Walls," the east curtain with its round buttress towers and wet ditch yet maintains possession. It is on the west, however, winding along the T in shore and West-quay, that the walls are in finest condition and most accessible to view, forming, indeed, the one side of the road, the broad estuary of the Test and the head of the "Southampton Water" laving its shelving slopes on the

other. The ancient town thus constitutes a rude parallelogram of about 800 yards extreme length by about 400 in width. On the south its limits may be readily made out to visitors by inverting the T and drawing the bar from the termination of the pretty walk called the "Platform" at the "Ilard" by the "Water-gate" up to the pier at the commencement of the West-quay, the High-street being as near as may be equidistant from the east and west boundaries. About midway of the western moiety are the remains of the "Castle," standing, as is commonly the case with Norman keeps in this country, upon the time-consolidated earth-mound of an earlier military work. The general date of the Southampton mural fortifications is that of King John and Henry III., the buildings having probably been commenced in the one reign and finished in the other. To these very important additions have been made of Edwardian character, the whole defensive character having been remodelled in the time of the third Edward, as is commonly the case in other fortresses, partly induced, no doubt, by the political requirements of that period, and partly due probably to the introduction of cannon, which are known to have been used at the battle of Cressy. The Bar Gate presents its best face to the north, and is a fine massive gate-house, flanked by two semicircular towers. To these buttresses are nailed weather-worn oil paintings, dated 1644, of Sir Bevis of Hamtoun and his gigantic squire, the heroes of one of the best known of the metrical romances of the middle ages. Sir Bevis is therein represented as cruelly treated by his mother and her paramour, who had murdered his father, and by whom he was himself sold as a slave, and thus became the property of a Saracen king. Of course the adventures of the knight follow, and after various reverses he elopes with the princess. Meeting the giant Ascupart he defeats him, for "Sir Bevis of Hamtoun, that knight tyght," never proving "a coward in fyght," nor having, of course, "farre or nere" in Christendom for "doughtiness" his "pere," spares his adversary, and makes him his squire. Bevis then encounters a terrible dragon and performs many wonderful exploits, the "Romance of Bevis of Hamtoun" disposing of him and its other characters in divers appropriate ways. The exterior front of the archway above the "bar" is decorated with various shields of arms of the seventeenth and eighteenth centuries, and the corbel heads represent Queen Mary, Elizabeth, James I. and II., and Queen Victoria. George III. in Roman costume occupies a niche on the inner face of the gateway, and in the Guildhall over the bar gate—now used as a sessions house—is the wooden figure of Queen Anne, which was occupant of the Gothic niche before the Romanesque monarch displaced it. When the party had assembled herein, their able leader briefly pointed out its architectural features, and then led off to the adjoining walls of the northern curtain, in front of which the wet ditch also extended, the fortified town being entirely moated on its two land sides and tide washed and secured by the broad estuary waters on the two others. Thence the party passed by Orchard-street, examining the walls on the Western-shore-road, along the whole length of which are arched machicolations no less than 11 ft. in interspace between the buttresses which rise to support them from the ground. These machicolations are Edwardian, and there are cavities between them and the wall face through which stones and missiles could be thrown upon assailants endeavouring to sap, or beams of timber lowered as defences against the attacks of battering rams. These machicolations are built up against the original wall, as is seen by the different character of the masonry, and which is especially noticeable in the veritable Norman domestic residence locally known as the Palace of King John, near the postern gate, now "Blue Anchor" court and lane. Inside this Norman house are the remains of the fireplace on the first storey, the back of the chimney stack to which it is attached being built out some few

inches on stone corbels externally as visible in the lane. From this interior the alluer, or partially over-hanging passage, along the top of the curtain walls, can be seen. The rough open arches under the baile (?) walls in Albion-street were examined, and regarded as simply arches of construction. The vaults in Simnell-street and behind the curtain walls on the West-quay were also visited, and were regarded as the king's and merchants' wine vaults, it being well known that as early as Henry III. Southampton was an opulent and thriving town, and that its merchants were, next to those of London, the largest importers in the kingdom of wines, the toll of which the king took in kind. These vaults, therefore, are remarkable examples of domestic Gothic of an early character, well worthy of every care, the relics of domestic Gothic being very rare compared to ecclesiastical remains, and oftentimes unique. Such a term might almost have been applied to the "God's House" next visited, in the condition in which it existed some twenty years ago. It was then, as an example of a Norman merchant's residence of the date of Henry III., the finest extant in this country. It would seem to have been bequeathed by its owner at that or some subsequent date as an alms-house, falling into the possession of Queen's College, Oxford, in the time of Edward III. Recently the alms-houses have been rebuilt in brick, and the church attached plastered over outside and inside, no credit being attributable either to the college or the architect in an archæological point of view for what has been done; the results being highly conducive to a firm conviction of the necessity of some parliamentary provision for the preservation of those "records in stone," which are as valuable to history as the records on parchment or paper, and which in their abundance and beauty, as in their ancient association, are amongst the highest of the glories of peaceful England. The destruction of an architectural monument is as great an act of Vandalism as the destruction of a manuscript, and town and county authorities should not be held less responsible for acts of desecration than individuals.

The West Gate of early work remains in little altered state, the position of the double portcullis and the stone corbels for carrying the wooden balcony being very clear. The water gate and later horn work concluded the subjects of Mr. Parker's admirable disquisitions upon the fortified town. These works present much the same characteristics as to dates and styles of architecture as those previously noticed. The older work here is of the period of Henry III.; the additions of those of Henry VI. and Edward III. Subsequently St. Michael's Church was inspected; whilst a special party made an excursion to Bitterne to see the remains of Roman Clausentum.

In the morning, the reading of papers was opened in the Historical Section by an address by Lord Henry Scott; and most notable excursions were made to Romsey Abbey and to Porchester Castle, the president of the congress, the Lord Bishop of Winchester, being of the party, as was also the distinguished president of the Institute of Architects, T. H. Wyatt, Esq. The party was a very numerous one, a special train of seven carriages being completely occupied.

In the evening there was a *conversazione* at the Ordnance Office by invitation from Sir Henry James, at which a remarkably interesting series of photographs of Jerusalem were displayed, Sir Henry's hospitality being duly honoured by a full attendance of guests.

(To be continued.)

THE BRITISH ASSOCIATION. —The forty-second annual meeting of the British Association for the Advancement of Science was opened at Brighton yesterday. A meeting of the general committee first took place, and at eight o'clock the first gathering was held. The Pavilion dome was crowded. The Emperor Napoleon and Mr. Stanley were present, and were both warmly received. The chair was taken by the retiring president, Sir William Thompson, who inducted Dr. Carpenter. The latter then proceeded to deliver his inaugural address. We will refer to it in our next.

SEFTON PARK, LIVERPOOL.*

TEN years ago, Liverpool, the second city in the kingdom, had but one public park (Prince's Park), which was of no great size and was situated at some distance from the central parts of the city. The public voice soon called for additional places of recreation, and the Corporation, in 1863, demanded of the Government the necessary authority of an Act of Parliament to enable them to carry out these views. After a considerable amount of carefully prepared estimates, &c., on the part of the chief engineer of the city (Mr. Newlands), a large extent of ground was purchased to give Liverpool three parks, namely, Newsham Park on the east, Stanley Park on the north, and last, and largest, Sefton Park on the south. The ground, for the last-named was purchased from Lord Sefton and Mr. Livingstone, for the large sum of £275,863. The total area of Sefton Park, which has been named after the principal of its former owners, is 387 acres. It lies south-east of Prince's Park, Ullet Road, Aigburth Road, Mossley Hill, and Smith-down Road. A natural rivulet, named Oskesles Brook, ran from north to south and formed a valley, which has been carefully made the most of and embellished; and a picturesque ravine, running from east to west, supplied an excellent opportunity of varying the aspects of the broken ground by the formation of cascades and water-falls. From the highest point, which is about one hundred feet above the level of the Mersey, a magnificent view sweeps over the broad estuary of the river and the adjacent country, bounded by the outlines of the Welsh mountains and the hills of Overton. The ground having been secured, the Corporation, in November 1866, opened an international competition for designs and estimates for the formation of the park, and offered two prizes, one of three hundred guineas, and the other of one hundred and ninety guineas. A large number of landscape-gardeners entered the lists, and out of the twenty-nine eligible competitors who had fulfilled the conditions of the programme, the judges, on the 1st of May 1867, decreed the first prize for designs to M. Ed. André, the chief landscape-gardener of Paris, and to Mr. Hornblower, architect, of Liverpool, who were partners in the contest. The second prize was won by Mr. Milner, landscape-gardener, of Sydenham.

MM. André and Hornblower were entrusted with the execution of the works, with a commission of five per cent., and on the 6th of June 1867 their terms were accepted. The estimates, which were at first laid at £85,000, ultimately swelled to the sum of £100,000, in consequence of the purchase of more ground from Mr. Livingstone for £12,000. Certain badly-disposed persons (for the most part unsuccessful competitors) did not scruple to find fault with this increase in the estimates, without appearing to have considered that it arose solely from the addition which was made to the park by the purchase of fresh ground subsequently to the estimate which was made in the first instance. Afterwards, other works, sanctioned by the Improvement Committee of Liverpool, and occasioned by unforeseen difficulties in carrying out the original design, raised the total expenditure to a sum which will probably be about £140,000, but it is nevertheless true that the original estimates of MM. André and Hornblower would never have been exceeded had it not being for these unforeseen complications.

The designers, not losing sight of the necessity of providing long promenades in the park, and to make them as varied as possible, have made walks in every direction in which a visitor may have an agreeable view. The carriage roads alone are more than ten miles in length, and are all macadamised with broken granite, levelled by the powerful steam-rollers of the corporation, and covered with a layer of fine gravel, over which the steam-rollers have also passed, and this affords a perfectly even surface even for pedestrians. The walks are formed of stone, cinders, and

a layer of Jersey yellow gravel, and they have been made so as to conduct the visitor to every point of view that presents any attraction; they are generally 10 ft. wide, while the carriage roads vary in width from 30 ft. to 70 ft.

One of the chief characteristics of the park is the lake and the general arrangement of the ornamental waters, which occupy a large area. As we have previously stated, the ground is divided by two valleys. Where the larger valley entered the park from the adjacent fields, the great circular road formed a natural intersection. The designers took advantage of this to form a wide slope here, in the side of which has been constructed a picturesque grotto of considerable size, out of which issues the stream, whose capricious meanderings follow the windings of the valley, its course being continually changed by a series of rocky barriers, until it finally flows into the lake. The drainage of the park from all points falls into this stream, and is of itself almost sufficient to feed it.

The other valley, which is shorter, more confined, and also more winding in its course, lies between steep slopes studded with rocks. At one end there is a cascade of great size, and the entire bed of the stream is thickly set with blocks of stone, which, like those used in forming the great cascade and the grotto, consist of the natural stone of the district—the red sandstone of Liverpool. All these stone constructions are the work of M. Combaz. The lake, which covers more than ten acres, is sufficiently large for sailing and rowing matches. Its bed has been excavated out of the rock, and its margin has been laid out so as to present a varied succession of graceful windings and bold projections.

CORRESPONDENCE.

LIFFEY PURIFICATION.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I fear we are not quite so near the accomplishment of this work as some suppose. Since the passage of the Liffey Act, 1870, and the Main Drainage (Dublin) Act, 1871, so considerable an advance in prices has taken place that, according to a London professional journal, from 30 to 50 per cent. must be added to estimates for sewerage works. The estimates upon which the Liffey Act conferred borrowing and the Main Drainage Act rating powers upon the Corporation, were in accordance with prices prevailing at the date of the passage of those acts, but not those at the present time. I expect we will be told some time in November that a new bill is necessary to extend the rating and borrowing powers up to the necessities of the period, and that, pending the progress of such bill, the Corporation is justly entitled to another slumber. Yours truly,

August 13th, 1872.

HOME AND FOREIGN NOTES.

CENTRAL DEPÔT IN MAYO.—Captain Mulloy, Royal Engineers' Department, has inspected the various unoccupied buildings of Castlebar Workhouse, with a view to facilitating the requirements of the proposed depôt centre in that town and their allocation therefor, if approved of. He has also inspected the several grounds adjacent, to ascertain their suitability for a commodious rifle-range, when organization of troops shall take place.

THE LONDON STRIKE.—We are glad to learn that there is a renewed prospect of a termination of the strike in the London building trade. Yesterday the central committee of the carpenters resolved to recommend the delegates to re-open negotiations with the employers, and to send a deputation, invested with full powers, to treat.

WHY WE SHOULD WEAR BEARDS.—There are more solid inducements for wearing the beard than the mere improvement of a man's personal appearance and the cultivation of such an aid to the everyday diplomacy of life. The hair of the moustache not only absorbs the moisture and miasma of the fogs, but it strains the air from the dust and soot of our great smoky cities. It acts also in the most scientific manner, by taking heat from the

warm breath as it leaves the chest, and supplying it to the cold air taken in. It is not only a respirator, but with a beard entire we are supplied with a comforter as well, and these are never left at home like the umbrellas and all such appliances when they are wanted. Moffat and Livingstone, the explorers, and many other travellers, say that at night no wrapper can equal the beard. A remarkable fact is, too, that the beard, like the hair of the head, protects against the heat of the sun; it acts as the thatch does to the ice-house, but, more than this, it becomes moist with the perspiration, and then, by evaporation, cools the skin. A man who accepts this protection of Nature may face the rudest storm and the hardest winter. He may go from the hottest room into the coldest air without dread; and we verily believe that he might sleep in a morass with impunity; at least, his chance of escaping the terrible fever would be better than his beardless companions.

TO CORRESPONDENTS.

IRISH ARCHITECTS.—George Semple designed several bridges besides Essex Bridge in Dublin. He made designs for ones in Waterford, Wexford, Londonderry, and other towns, some of which were never erected. We do not remember any other of the name. Semple's father was a workman—we believe a mason,—but we do not remember his Christian name; he might have designed some country bridges.

THE TOWN COUNCIL.—Ask the Town Crier, whoever that personage may be. It is a pity the ancient bell-man is extinct, or else he could be employed to ring their praises.

DONEGAL GRANITE.—The specimens exhibited by Mr. Harte are very fine. He could, no doubt, afford you every information, if communicated with.

THE CORPORATION ESTATES.—Will have something to say about them shortly, from Baldoyle to Ballybough, and from Stony Batter to Stillorgan, and even farther. Rather they ought to be called the people's estates.

SANITARY ASSOCIATION.—We do not know sufficient about projected association to express an opinion thereon. All we know is, that there is ample room for its labours, and, when formed, we hope it will keep up a dust, and end as it has begun, in dirt.

PUBLIC SQUARES.—We will never rest our advocacy until they are freely opened to all classes of our citizens, for whose health and recreation they were originally intended, but diverted by exclusives.

CONSTRUCTIVE CARPENTRY.—The late editions of Peter Nicholson's work are pretty good, though some of the descriptions given are complex. More recent works—for instance, the one by Robert Riddle—are by far the best and plainest. Pain, Price, and Nicholson are the basis of all our modern works upon the subject.

Some articles and notices of works are unavoidably held over.

BANKRUPTS.

Matthew Echlin, of Rush, in the County of Dublin, builder, to surrender on Friday, the 23rd of August, and on Friday, the 13th of September.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filed with vestas, at one penny. Any Tobacconist, Grocer, Chemist, or Chandler will supply it.

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We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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extended his Premises, he will undertake all kinds of Masonry, Architectural Stone
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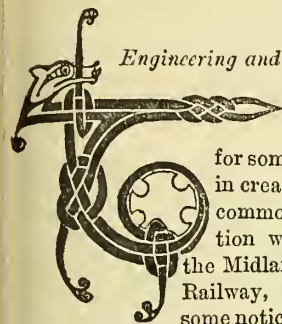
His best consideration shall be given to all Orders, with thanks for past favours.

DESIGNS & ESTIMATES FORWARDED TO ALL PARTS OF THE COUNTRY, ON APPLICATION

The Irish Builder.

VOL. XIV.—No. 305.

Engineering and Inland Traffic.



HE works which have been for some time in progress in creating new dock accommodation in connection with the traffic of the Midland Great Western Railway, are entitled to some notice. What is about

being now carried out, under favourable auspices, was partly commenced in the days of the Irish Parliament, continued on at intervals after the passing of the Act of Union, but finally abandoned in the memory of men still living. The history of the Inland Navigation of Ireland is a strange one. It begat high hopes, but very few of these hopes were realized, and many dark spots, we regret to say, stand out in full relief in patent condemnation of its earliest management.

The Irish Parliament meant well in voting supplies for the commencement and prosecution of the work, but the original companies or boards, who were entrusted with the control and direction of the Inland Navigation, deserve to be branded in history for their gross conduct.

The Royal Canal had its inception through one of the directors of the Grand Canal, who had a difference with his colleagues. A company was formed, which was incorporated in 1789, under the title of the "Royal Canal Company." An Act of Parliament was obtained, and the patronage of the Board of Inland Navigation was extended to the enterprise. About the year 1795 the canal was opened as far as Kilcock, when the then Duke of Leinster and some of his family made a first excursion upon it. A year later the receipts from its traffic amounted to only £108. Later an extension to Mullingar was accomplished, and its revenue by the year 1810 amounted to £15,024, with a debt of £1,142,550, charged with an annual interest to the amount of £49,624 10s., towards the payment of which there was available only £4,181 4s. 6d. Parliament was petitioned for relief; the company was declared bankrupt, and the property vested in the creditors, the majority of them being poor widows and orphans.

About this period the work had proceeded a few miles beyond Mullingar, when a grant of £200,000 was given to complete it to Tarmabarkey, on the Shannon. In 1818 a new company, which was formed out of the old, made a dividend of 2½ per cent. in 1836, but in 1843 it came down to 1½ per cent.

The cost of the whole undertaking of this rival Royal Canal amounted to £1,421,954 13s. 1d. A ship canal was suggested, and even forty years afterwards the late Lord Cloncurry projected such an undertaking. A petition was presented to Parliament, signed by 38 peers, including the Dukes of Devonshire and Leinster, and, individually, Lord Cloncurry expended £500 in preliminary proceedings, but the enterprise fell to the ground. The blame was thrown upon the

commercial interests of Liverpool, who, it was said, had sufficient influence on the Government to cushion the project.

Under the 8th and 9th Victoria, the Royal Canal became the property of the Midland Great Western Railway Company.

It may be here recorded that in 1811 the Royal Canal Company failed under most disgraceful circumstances, in which frauds of a most glaring nature were revealed. The Board of Inland Navigation was charged with being privy to these defalcations, and several matters came to light shewing its incapacity and corruption. When the exposure of its stewardship took place in 1811, the half a million grant was found to be expended or accounted for as follows:—

	£	s.	d.
For expenses of establishment and the four navigations in its charge	172,238	17	11½
The Royal Canal had obtained of it	98,831	6	7
Grand Canal (to improve the Middle Shannon) - - -	52,231	17	8
Barrow Navigation Company - - -	41,881	8	9½
Corporation of Dublin, to improve that port - - - - -	15,463	18	3½
Applications granted, but not paid	9,875	0	0
In the Bank of Ireland - - - - -	9,147	10	6¼
Poundage and bills at the Treasury	5,587	10	2½
	24,610	0	8¾
Balance, not received or apportioned up to March, 1811 - - -	94,742	10	0
	£500,000	0	0

The above items or accounts must be allowed to speak for themselves.

It would perhaps be useless now to speculate on what would be the result of a ship canal from ocean to ocean, east to west of the island. The project was and is still feasible, but its execution will, we fear, ever remain a dead letter.

The construction of the new docks, and the railway on the west side of the canal from Newcomen Bridge to the Liffey, is being pushed on vigorously. The original design was to have two docks, to be connected by a swivel-bridge. The upper portion was abandoned, and an ordinary bridge was substituted. The upper sheet of water became a cesspool or receptacle for filth and refuse for several years—foul sewers emptying their contents into it. The main sewer recently built from Mountjoy Prison to the Liffey, has completely removed this nuisance. When the works for deepening the river and constructing new quay walls have been completely finished, the full value of the dock accommodation in connection with the Midland Great Western Railway will be seen and acknowledged.

Newcomen Bridge will be lowered about 6 ft., and a new chamber, about 80 ft. long, will be formed on the level between Clark's Bridge and Newcomen Bridge. The span of the new stone bridge, in lieu of the latter-named bridge, across the canal, will be 15 ft., the exact breadth of the water passage at this point. The stones of the old structure have been dressed and worked into new one. The spaces on either side left between the springing of old arch, 33 ft., and that of the new, 15 ft., have been converted into passages about 4 ft. 6 in. wide, formed with pointed arches. The lowering of the roadway will facilitate the laying of the projected tramway to Clontarf and northern suburbs. The width of bridge is 68 ft. 8 in., clear of arch.

In close proximity is the Liffey Branch of the Midland Railway, which is spanned by iron girders; the length of span at narrowest part being 37 ft., increasing obliquely to

52 ft. to suit the junction of rails on western side. This branch, besides its present communication on east side of "Royal Dock," shoots out an arm to its right by means of a swivel-bridge below Newcomen Bridge.

It will be seen from what we have written that the Midland Railway Company will possess superior advantages for carrying on a great inland traffic for the east and west of Ireland, and in conjunction with the steamers plying between Holyhead, Liverpool, and the other English ports. The sum which will be expended on these new works will be considerable, but we think it will be well and wisely expended.

The re-building of Newcomen Bridge is being executed by contract under Mr. P. Gallagher.

The principal part of the works is from Newcomen Bridge to the junction of the Royal Canal with the Liffey at the North Wall, and comprises two spacious docks, capable of accommodating nearly one hundred vessels of large tonnage. The upper dock has on its western side a very fine quay wall in course of construction, built with cut limestone backed with good concrete, and running the entire length over 1,700 ft., 100 ft. wide on top, with a double line of rails. This wharf is intended for the use of the general public. The work (which is being done in the very best manner) is under the superintendence of Mr. M'Caffrey, foreman mason.

The quay wall on the opposite or eastern side is constructed with long piles driven 6 ft. 6 in. below the bed of the dock, and reaching to the top of the wharf, which is also to be provided with a double line of rails similar to the other side, and intended solely for the traffic of the Midland Great Western Railway Company. The long piles are spaced 10 ft. apart, with two tie-bars in each; at the back of these, and running over 1,300 ft. of the entire length, are fixed a double row of short piles or sleepers 9 ft. high, having on top a planking 4 in. thick and 16 in. wide, on which is raised a concrete wall 9 ft. high to the top of wharf, 15 in. thick at back of long piles and swelling to 21 in., with a curve in the centre between the piles. There is to be fixed on the top of the long piles a wood curbing 9 in. by 12 in., inside of which and over the concrete there is to be a curbing of cut stone 9 in. by 15 in. The work on this side is under the superintendence of Mr. Francis M'Owen.

The earth-works, cuttings, excavations, &c., are being carried out by Mr. Cassidy, contractor; the timber-work, centreing, &c., by Mr. G. Houghton, foreman carpenter.

Messrs. Courtney and Stephens are constructing a very fine iron swivel-bridge between the two docks. This bridge, the invention of Mr. Price, deserves commendation for its many advantages over others hitherto in use; but we must reserve, until another opportunity, a full description thereof.

The carrying on of the various works necessitated the damming of the canal water about 200 ft. above Newcomen Bridge. This has been effected by the Main Drainage Committee; and, as a portion of their low level drainage system, they are having constructed, at a depth of 6 ft. below Ordnance datum, a brick syphon culvert, 6 ft. in diameter—one of the largest size contemplated by the engineers. By taking advantage of the opportunity afforded them by the Railway Company for building this culvert, a considerable saving will be effected by the Drainage Com-

mittee. This portion of these extensive works is carried on under the superintendence of Mr. Parke Neville, City Engineer, assisted by Mr. Andrews, C.E.

We have noticed an excellent centrifugal pump, by Messrs. Easton and Amos of London, which is being used for the purpose of draining the upper dock during the progress of the works. It lifts about 1,800 gallons per minute, and has given in its working every satisfaction to the engineers.

The great bulk of these important works are being carried out by the employés of the Midland Great Western Railway Company, under their able and courteous engineer, Mr. James Price, C.E., M.I.C.E., Mr. Goulding, engineer in charge, and Mr. Olley, manager. From personal observation we can bear testimony to the ability and experience manifested by the staff employed under them.

When the works which the Port and Docks Board are carrying out under Mr. B. B. Stoney, C.E., are finished, the trade of the port of Dublin and the facilities possessed by the Midland Great Western Railway will, doubtless, prove a boon to this country.

THE LATE LONDON BUILDING STRIKE.

AFTER a warfare of three months between the building operatives of London and the master builders, the strike may be said to be virtually at an end. On Tuesday last the carpenters' deputation came to an agreement after six hours' conference with the masters at Westminster Chambers. On the following day the deputation, consisting of representatives of the plasterers, painters, metal-workers (smiths), and the labourers, effected a similar agreement after three hours' deliberation. On the morning of the same day the bricklayers' conference took place, but in consequence of their body not investing the deputation with full power to conclude a settlement, the conference broke off. Negotiations were re-opened again on Friday morning by the secretaries of the bricklayers' committee, and there is but little doubt before these lines are in print a settlement will also be finally concluded with that body.

The several trades have certainly obtained some concessions, but they have been unable to obtain the full terms of their several memorials. If they had been more united they would certainly have made better terms with the masters, and what they have succeeded in getting, after a three months' contest they could have obtained in the first month.

The masons came to an agreement with the employers early in July. Their isolated action in making terms apart from the other operatives led to the protracted contest on the part of the carpenters and the other trades who would not be bound by their agreement, and repudiated the settlement arrived at by the masons' committee. The following agreement was signed on Tuesday last on behalf of the carpenters, and it is similar to the one signed and accepted by the other trades:—

"2 Westminster Chambers.

"The working hours to be 52½ all the year round for joiners in shops, and 52¼ per week for 40 weeks in summer, and 48 hours per week in winter for outdoor work, leaving off on Saturday at one o'clock during winter weeks. The wages to be 8½d. all the year round. Overtime, beyond the above hours, when worked at the request of the employer, to be paid for at the following rates:—For the first hour 9½d. per hour, and from the end of the first extra hour until eight o'clock, p.m., at the

rate of 10½d. per hour, after eight o'clock at the rate of 1s. 0½d. per hour. This scale not to apply to the case of men working overtime at their own request, or to make up time lost by them during the week. Extra time on Saturdays to be paid for at the rate of time and a quarter up to five o'clock, and after that time at the rate of time and a half.

"(Signed) CHARLES MATKIN,
"Secretary, Carpenters and Joiners."

It will be seen by the above agreement that the carpenters have obtained some decided advantages in respect to working overtime, and the other trades have also obtained similar concession as to extra payment for overtime. The carpenters fought hard for a rule to abolish or restrict piece-work in the trade, but the employers would not entertain the question at all.

There will be a general resumption of work on the part of the building hands on Monday, but it is the intention of their committee to keep up the agitation against other firms not represented in the Central Association of the Master Builders. It is not unlikely, although the strike as against several of the leading firms is at an end, isolated strikes will still take place against firms who are not bound by the above agreement, as they are not members of the Masters' Association. The carpenters and other bodies will do their utmost to equalise the wages in all the building shops. The present agreement can hardly be looked upon as more than a provisional agreement for the present year. There is likely to be another demand made by the building trades in London next season for their original demands—"nine hours and ninepence." Both the Masters and the men have come to the resolution of keeping intact their organizations in view of future contingencies.

The following resolution was passed at the conference between the carpenters and the masters:—

"In the opinion of the sub-committee of the Master Builders' Association and the deputation of the Carpenters and Joiners now met together, it is desirable that an endeavour should be made to settle all future questions which may arise on trade matters by conference or by arbitration."

If the method of arbitration was resorted to at the commencement of the strike, the dispute would have been amicably settled in a few days. Perhaps wiser counsel will prevail on the next occasion. We are glad, for the sake of the building interest that the strike is virtually, to all intents and purposes, at an end. Masters and men have lost a good deal of valuable time, and, no doubt, many working men's families have felt the pinch in more ways than one during the last three months. Strikes and locks-out are evils, and will always be so; and they are evils which are very suggestive of commonsense remedies, which are always at hand for adoption.

THE NEW SANITARY ASSOCIATION.

THIS newly-formed body holds its meetings weekly at 26 St. Stephen's Green. At the meetings of the "Working Committee," on the two last Thursdays in past month, Dr. Churchill in the chair, we noted the following proceedings:—

A letter was read from the secretary of the Public Health Committee, acknowledging receipt of a document from the secretary of the Dublin Sanitary Association, and containing a copy of a resolution passed at a meeting of the Public Health Committee, on the 16th inst., *thanking the Dublin Sanitary Association for their offer of co-operation, and*

expressing their readiness to *avail themselves of their assistance.*

The sub-committee for the inspection of nuisances handed in a list of nuisances inspected since last meeting—in Mercer-street, the Coombe, M'Clellan's-lane (Coombe), Oliver's-alley, Wood-street, Whitefriar-street, Golden-lane, Stephen-street, Long-entry, and Lombard-street.

The secretary was directed to report these to the *Public Health Committee.*

A number of nuisances were brought under the notice of the committee by some of the members, and referred to the sub-committee, to be inspected and reported on at the next meeting.

Letters were read from the secretary of the Public Health Committee, *thanking the working committee for the list of nuisances reported by them, and informing them that steps had been taken for their removal; and from the secretary of No. 1 Committee, granting permission to a sub-committee of the Dublin Sanitary Association to inspect the machinery for the cleansing and disinfecting of the city.*

We fear there are too many committees—public, sub., and working. Can the work be well done when bandied about thus, and so many compliments passed?

ARCHITECTS' ASSISTANTS REGISTRY.

WE have been requested to state that the secretaries of the Architectural Association of Ireland have opened a registry for architects requiring assistants, and assistants seeking engagements. This, we have no doubt, will be a great boon, and will be duly taken advantage of by the two classes of the profession which it is organised to benefit. We cannot, however, agree with the policy of the rule by which (as we are informed) the benefits of the registry have been restricted to members of the association. We consider that it should be open to (so to speak) the professional public, with, perhaps, a small registration fee.

TENDERS.

For alterations to house at Portadown, for Mr. Pepper:—

Collen, Brothers (accepted) .. £161

For four hour houses at Rostrevor, for Mr. Edward Greer:—

MacShane and Lavery .. £1,101
O'Hare 1,675
Rantin 1,576
Whelan (accepted) .. 1,550

For additions to hotel at Rostrevor, for Mr. William Sanxter:—

MacGuirk £510
Rantin 487
MacShane and Lavery .. 480
Whelan (accepted) .. 484

For new offices for Newry Gas Consumers' Company:—

Whelan £372
Rantin 368
MacShane and Lavery (accepted) .. 349

SIR WALTER SCOTT'S Bust.—Mr. John Hutchison, R.S.A., of Edinburgh, has completed a bust of Sir Walter Scott for St. Louis, Missouri. The work was commissioned by the Caledonian Society, a body of patriotic Scotchmen in St. Louis and is intended to be placed in the public library of the town as a permanent memorial of the Scott centenary celebration.

The Dundalk and Greenore line of railway will not be opened for traffic until the ensuing spring.

The extension of the Newry and Armagh line to Greenore will be carried out by the London and North-Western Railway Company. It is not nearly thirty years since this line was first spoken of, and several attempts have been since made towards its construction.

THE IRISH SOCIETY, i.e., THE LONDON CITY COMPANIES.

WE have been considering for some time past the advisability of throwing some little light upon the management of the Irish estates of the London City Companies in the North of Ireland. The question came before Parliament, we believe, in 1869, and also in some year previous. One of the members for Cork undertook to bring the subject before Parliament with a view to legislation upon the matter, but the enquiry instituted did not result with much profit to the nation, and much less to those interested as tenants in these estates in Ulster. The Salters' Company, for instance, figured rather conspicuously in the revelations made; but there were strong advocates on the London daily and weekly press, who worked with might and main to prove that these estates were well managed, and that the London City Companies interested were most honourable bodies. Were we to give the origin and history of these Irish estates, it would form a very interesting chapter, and one, too, that would suggest grave and serious considerations. We will allow that they are conducted better than they were in former years, but their present position in this country is an anomalous one.

For the present we will only record the annual visit of a deputation of the Irish Society to their estates in the county Londonderry, and in doing so, we ask the reader to note, as he reads, the number of gentlemen whom it was found necessary to send over from London to do a very commonplace business. Funds are, no doubt, flush, and the estates in Ireland afford a sufficient rental to pay for feasting "and all that sort of thing." The deputation on the 12th ult. was as follows:—Mr. Deputy Robert Taylor (deputy-governor), Alderman Sir Thomas Dakin, Mr. Alderman White, Mr. Alderman Whetham, Mr. Alfred Pill, Mr. David Sims, Mr. John Charles Evans, Mr. Isaac Wilcox, Mr. Henry Hill, Mr. William Clements, Mr. David Smyth, Mr. Edgar Breffitt, Mr. Frederick Cox, Mr. Joseph Snowden, Mr. John Thomas Bedford, Mr. William Payne, Mr. John Finlay, Mr. George W. W. Wheatly, F.R.G.S., Mr. Richard Ellis, Mr. John Mackrell, solicitor, Mr. Ducie Millar, secretary, Mr. Walter Green, agent. The governor, Alderman Sir W. A. Rose, was absent through indisposition. The members of the deputation arrived in Coleraine at noon, for the purpose of meeting their tenantry, and the representatives of the public, at a banquet here. Committees from various public institutions, including the Coleraine Town Commissioners, the Academical Institution, and others, were received by the deputation in the Clothworkers' Arms Hotel. The deputy-governor presided. The deputation gave a very kind reception to the several applicants for aid towards the promotion of the religious, educational, and commercial works brought before them, the deputy-governor pledging the society to the payment of a handsome subscription for the improvement of the navigation of the River Bann. At two o'clock the deputation visited the Irish Society's Schools, when several of the leading gentlemen of the town were present. The scholars of the boys' and girls' schools were gathered in the school-room of the latter, to meet the deputation. There were something approaching six hundred children assembled, under their respective teachers. The children were addressed by the deputy-governor, and by Alderman Sir Thomas Dakin. The children (to whom sixpence each was given by the deputation) sang several pieces in a pleasing manner; and three hearty cheers were given for the governor, deputy-governor, and their colleagues. Afterwards a large and influential assemblage sat down to a *déjeuner* in the boys' school-room. "The Health of the Deputy-Governor" was proposed in warm terms by Sir H. H. Bruce, M.P., who expressed great regret at the absence of Sir W. A. Rose. The deputy-governor proposed

"The Health of the Chairman of the Coleraine Town Commissioners," which was drunk with great cordiality, and Mr. Mathews returned thanks. On a subsequent day the deputation "assisted" at the reception of the Duke of Abercorn at Londonderry.

It is not at all unlikely that the London estates of the City Companies as well as the Irish estates of the Irish Society will come in, one of these days, for an exhaustive parliamentary enquiry. If all is square, no harm will be done; if abuses exist, why then a little reform will not be a revolution to be feared, but a revolution to be welcomed by society at large.

THE CITY OF LONDON.

THE *one square mile* known as the "City," in contradistinction to the metropolis, is a wonderful eyelet of "business." London is large, as befits its importance, but it is not equally powerful, writes a contemporary. "The City" is not for an instant to be compared with any other in the 47,000,000 of square miles of dry land in which our earth rejoices, or the 90 miles within the charmed circle of the Post Office. Whence comes the power of this golden spot, where nothing is grown or delved and little made? Its power comes from its almost perfect organization for distribution. It receives the produce of all nations, the outcome of all mines, the labour of all towns and cities, and it redistributes it again to the highest bidder, helping itself to no mean portion of the wealth as a reward for its trouble. Consequently—though it may be the foolish fashion of the day to decry middle men, the link which binds the two ends of the chain of existence together—London is the paradise of the distributor, and the head-quarters of centralization.

Taking the "City of London Directory" as a guide, we find within the golden mile no fewer than 5,198 firms of merchants, 2,250 agents, 1,875 brokers, 136 factors, 193 salesmen, 457 warehousemen, 198 auctioneers, 481 conveyancers, and 174 bankers and discounters. All middle-men, pure and simple, yet turning over millions of gold, and satisfying hundreds of thousands who but for them would give up "the struggle for existence" in despair. The manufacturing firms number 2,447, and the "makers" 2,823. But 99 out of every 100 of these people are likewise middle-men; they manufacture nothing, they make little—they are merely warehousemen for others or on their own account. Out of these men come the merchant-princes of England, keen-eyed buyers and sharp-witted speculators, whose loss or gain in trade, or rise or fall in the social scale, mainly depend upon the turn of a farthing many times multiplied.

However perfect may be the system on which such an enormous mass of business is managed, it can never be completed without blunder or error on the part of some of the principals or of their underlings. The complications, too, or interweavings of business with business, are another and prolific source of misunderstandings. To repair these, or at least to make smooth the grooves of business, a small army of agents lodge within the city, or lie in wait upon its borders. Of these the firms of solicitors alone number 1,427; the barristers, 1,902; attorneys, 13; proctors, 42; counsellors, 136; arbitrators, 10; appraisers, 14; average adjusters, 10; auditors, 30; equity draftsmen, 275; law-writers and agents, 18; notaries public, 26; special pleaders, 185; and accountants, 366; or, in the aggregate, 4,454.

These have their requisite courts of law; but over and above all there is an *imperium in imperio*, governed by an annually-elected President or Lord Mayor, 26 elder men or aldermen, and 206 members of the lower house, or common councilmen.

There are some curious anomalies, however, about the census of this wonderful square mile which, but a decade since, perplexed a witty Frenchman, yet enabled him to talk

grandly of the "downfall of London." There was the decrease of its houses, which new number about 13,114 and the diminution of its inhabitants to 74,897, not half what it was at the beginning of the century (156,859). But the illogical Frenchman was the victim of the fallacy of figures without explanation. The 74,897 inhabitants of 1871 are but the night or sleeping population, while the day population is considerably over half a million, and contains people of all nations, creeds, and tongues under heaven, more so than Babylon or Rome, Tyre or Jerusalem, Venice or Genoa;

CITY WALKS AND CITY GARDENS.

CITY, rural, and window-gardening is beginning to look up lately. Would that we could implant a love of flowers into the hearts and souls of the careless "Paddy-go-Easys" and thoughtless Nancys in middle class life, as well as among the more humble classes in this kingdom, and more particularly in this country.

An account is given in the *Law Magazine* of the alterations in the Middle Temple Gardens, London, and in the fountain in Garden-court, which are approaching completion. It is remarked that Sir Lawrence Peel repudiated the idea of being a Vandal in cutting down the finest of the trees around the fountain, and what he has done certainly bears out his repudiation. All the alterations are being conducted under his directions. He has planted at least a dozen trees in its room, and the next generation will probably be grateful to him for so doing. The fountain has been removed, but has been replaced by a good jet, and those who love to remember that this was the place which Charles Lamb frequented; where John Westlock contrived by accident to meet Ruth Pinch, herself waiting for her brother Tom coming out of those curious chambers in Garden-court, need have no cause for alarm. Sir Lawrence's change is in this respect really a restoration. The fountain itself which has been removed is a modern innovation; the jet is the genuine thing, and, what is more to the purpose, is a prettier and more refreshing object than that which it replaces. The high fence round the fountain has been removed, and a lower and lighter one used with advantage. The steps leading into New-court have been widened—a great improvement. On each side of them have been placed the ugly posts surmounted by golden lambs, which formerly occupied a corresponding position towards the steps leading from Garden-court into the garden. This latter entrance has been stopped—a questionable improvement; but a new entrance has been made through the Treasury passage in Middle Temple-lane. The railing separating Garden-court from the space round the fountain has been removed and has been replaced by a short wall with a neat coping upon it, while an undulating cable border has been put in front of the houses opposite, for the purpose of holding a few flowers, but more especially for growing the plants to be trained up the walls. This, too, is an improvement. So also is the enorment of the garden into Garden-court. The Templars will have to give a hearty vote of thanks to Sir Lawrence Peel when he has completed his alterations.

The wretched attempts at gardening in some of our public squares in Dublin is enough to disgust any intelligent person with the smallest pretensions to horticultural taste. Even the grass would not be cropped by an emaciated gosse in quest of a tonic, unless, indeed, Mr. Solomon or Mr. Yates could succeed in attaching a pair of green spectacles to the frontispiece of the much-maligned bird.

We would seriously advise the directors of some of our public squares to put up a notice to the following effect:—

"TO DAIRYMEN AND OTHERS.

" 'Cows grazed by the week.' Enquire of the gardener on the common, or at the offices.

"N.B.—Lapdogs in arms admitted."

NOTES ON THE ECCLESIASTICAL
ARCHITECTURE OF IRELAND.BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A., SCOT.

CLONMACNOISE.—(continued).

THE remains now existing at Clonmacnoise are appropriated as follows, and are shown and numbered on the accompanying map taken from Ware's *Antiquities*, with some corrections:—No. 1, O'Rourke's Tower; No. 2, Temple Ciaran; No. 3, Temple Doulin; No. 4, Temple Connor; No. 5, Temple Finghin; No. 6, Temple Dermot, or the Cathedral; No. 7, Temple Righ, or Melaghlín's Church. The unshaded buildings were in existence when Ware's illustrations were made in 1780, and he has named them—No. 10, a sepulchral chapel of the Malones; No. 11, Temple Kelly; No. 12, Temple Gauney; No. 13, Temple Easpic, or the Bishop's Chapel; Nos. 15 and 16, the residentiary houses of the dean, archdeacon, &c.; No. 17, Temple Killian: of these buildings there is now no trace. Ware also shows four crosses standing at Nos. 8, 9, and 14, and one inside the Malone sepulchre; of these two only are now to be found. The Nuns' Church stands a few hundred yards east of the cemetery, and the ruins of the Bishop's Castle about the same distance to the southwest. Harris, who compiled his valuable edition of *Ware's Antiquities of Ireland* in 1789, employed an able artist named Blaymire to make drawings of the old cathedrals and churches to illustrate his work. The artist appears to have done his part at Clonmacnoise very creditably; the drawings appear to be truthful and correct, and the details fairly given, considering the then state of artistic ability in this country. Ware's large sheet shows a plan of the cemetery with the then existing buildings; a general view of the ruins; an elevation of the mediæval doorway to the cathedral; ditto of the Romanesque doorway with pointed arches; ditto of the chancel arch in the Nuns' Church; a front and a side view of each of the two principal crosses; and a view of the ruins of the Bishop's Castle.

Archdall is more than usually descriptive in his account of Clonmacnoise; and as he describes the remains as they existed in his day, I make no apology for quoting him here:—

"The situation of Clonmacnoise is delightful. It stands about ten miles from Athlone, on the banks of the Shannon, and is raised above the river on ground composed of many small elevations, on which are a few of the buildings which did belong to this ancient house: several other ruins appertaining to it may also be seen in the little valleys between the hills. The whole is bounded to the east and north by very large bogs."

"Here are two round towers, elegantly built of hewn stone; the larger, which is called O'Rourke's, and wants the roof, is 62 ft. in height and 56 ft. in circumference, and the walls are 3 ft. 8 in. in thickness. The other tower, called M'Carthy's, is 7 ft. in diameter within, and the walls are 3 ft. in thickness, and 56 ft. in height, including the conical-shaped roof. The next considerable building we find here is the cathedral, which was the ancient abbey; the doors of it are richly carved. There are several old monuments in this church, on which are inscriptions said to be partly in Hebrew and partly in Irish. At length this abbey, which was formerly endowed with very large possessions, suffered a gradual decline, and in the course of time was reduced and despoiled of all its property."

"The cemetery contained about two Irish acres, on which ten other churches were afterwards built by the kings and petty princes of the circumjacent country, who, though at perpetual war whilst living, were content to rest peaceably beside each other. The several founders named these churches as follows:—Temple Righ, or Melaghlín's

Church, built by O'Melaghlín, King of Meath, and to this day it is the burial-place of that family; Temple O'Connor, built by O'Connor Dun; Temple Kelly; Temple Finian, or M'Carthy, built by M'Carthy-More of Munster; Temple Hurpan, or M'Laffy's Church; Temple Kiaran; Temple Gauney; Temple Doulin, which is now the parish church; and Temple M'Dermot. This last was much larger than any of the others, and before the west door stands a large old cross of one entire stone, much defaced by time, on which was some rude carving, and an inscription in antique and unknown characters."—(Archdall; *Monas. Hib.*, p. 392.

NO. I.—O'ROURKE'S TOWER.

This is a remarkably fine specimen of its class; it stands outside of the cemetery on the west side, barely touching its enclosing wall. It is built of the fossiliferous limestone of the locality, the masonry in regular ashlar courses, from 7 in. to 13 in. in height, all the stones squared and set with close joints. I have seldom seen a finer piece of masonry. This class of work reaches to the sills of the attic windows; from thence upwards the work is of ordinary rubble. The present height is 62 ft., but according to its proportions it must have been much higher; it springs from a base course 8 in. high and 4 in. projection; the circumference immediately over this course is 58 ft. 6 in.; there is a slight bulge in the masonry at the north side, and an appearance of settlement towards the declivity, the ground falling away from the base of tower at that side. The doorway faces nearly south; it is semicircular-headed, 2 ft. 7 in. wide at bottom, 2 ft. 5 in. at spring of arch, and 3 ft. 9 in. high to same; the sill is in one stone, 5 ft. 3 in. long; top of sill, 11 ft. 3 in. from the ground; there are nine stones in the arch, which with the jambs are most carefully and accurately wrought; the thickness of wall of tower is 3 ft. 9 in. at sill of doorway; there are two quadrangular window-opes with converging sides, one facing S.W., the other N.E.; in the attic storey are eight opes, rectangular in form, and of rude workmanship. There are four offsets on the interior, placed at irregular heights. This tower was excavated in the year 1851 by Col. Jones, R.E., when two skeletons were found in the centre, and at a level slightly under the foundation course.

An aged peasant, who spoke Irish, on being asked the names of the Round Towers, unhesitatingly answered, Clugas-More and Clugas-Beg.

Dr. Petrie is very undecided respecting the age of this tower, though he inclines to the opinion that it was erected about A.D. 908, when the Daimliag Mor or cathedral was erected by Flann O'Melaghlín and the Abbot Colman; but if we for a moment examine and compare the two buildings, we will find it impossible to believe that they could have been erected at the same period or by the same persons; there is no connection between the styles of the two structures, and both the materials and masonry are dissimilar. It is incredible to believe that those who erected the beautifully-formed tower, of finely-jointed ashlar work, would have contented themselves with building the cathedral of coarse limestone rubble. If the tower was considered an ecclesiastical building and an adjunct to the cathedral, it certainly would not have been constructed in such an expensive manner, while the more important structure was so meanly built. Taking into account the relative values of the work, the tower is a more costly building than the cathedral. We must also remember that the tower is at a considerable distance from the cathedral, and never could have grouped with it or any of the churches (see the map). We must therefore assume that there was no connection whatsoever between the two buildings, and that they could not possibly have been erected at the same period or by the same builders. Dr. Petrie gives the following quotation from an an-

cient document, "*The Registry of Clonmacnoise*":—"And the same O'Ruairk of his devotion towards y^e church undertook to repair those churches, and keep them in reparation during his life upon his own chardges, and to make a Causey, or Togher, from y^e place called Cruan na Feadh to Tubhar Conaire, and from Jubhar to the Lock; and the said Fergal did perform it, together with all other promises y^e he made to Cluain, and the repairing of that number of chapels or cells, and the making of that Causey, or Togher, and hath for a monument built a small steep castle or steeple, commonly called in Irish Claiethough, in Cluain, as a memorial of his own part of that cemetarie: and the said Fergal hath made all those cells before specified in mortmain for him and his heirs to Cluain; and thus was the sepulture of the O'Ruairks bought" (Petrie; *Round Towers*, p. 388). The *Registry of Clonmacnoise* is a document purporting to have been compiled in the fourteenth century; the original MS. is stated by Archbishop Usher to have been lately "conveyed away by the practice of a lewd fellow who hath thereupon fled the country" (*Ibid.*, p. 265); but that transcripts of it were "in the possession of the Archbishop and of his friend, Sir James Ware, who had it translated into English by the celebrated Irish antiquary, Duald Mac Firbis."

It must be admitted that the authority of such a document cannot weigh much in a controversy as to matters of fact. Its style and phraseology is evidently not of an early age. Dr. Petrie, though he quotes it, does not attach much credit to it as an authority (see pp. 266, 7). Fergal O'Ruairk was killed in A.D. 964, and the document states that he "hath for a monument built a small steep castle," &c. If this refers to the Round Tower, it is evident that, at whatever time this "*Registry*" was compiled, the idea of a monument was attached to it, and this is further borne out by the finding of two skeletons in its base, as already mentioned; here we have not a word about a belfry or bell-house. Dr. Petrie quotes a passage from the *Chronicon Scotorum*, which he conceives refers to this tower, as follows:—"A.D. 1124.—The great cloicheach of Clonmacnoise was finished by Giolla Christ O'Malone and by Turlough O'Connor." The above passage is to be found at 1120 and not at 1124. The same event is noticed in the *Annals of the Four Masters*, at A.D. 1124:—"The finishing of the cloicheach of Clonmacnoise by O'Malone, successor of St. Kiaran." Dr. O'Connor translates this passage as follows:—"A.D. 1124.—Operimentum Campanilis Cluænæ Mac Nois factum per O'Maloneum Vicarium Ciarani." Without going into the vexed question of the meaning of the word *cloicheach*, as found in our *Annals*, and of which I have treated at some length in another place (*Ulster Jour. Arch.*, v. vii.), I would here remark, that Dr. O'Connor translates the passage as recording the roofing of the tower, and this I believe is all that can be made of the transcript, which probably refers to the restoration or rebuilding of the upper storey, which from the nature of the workmanship and materials must have been executed at a period long antecedent to the original construction of the tower.

NO. II.—TEMPLE KIARAN.

This is a ruined little building at the north side of Temple Righ; it measures 12 ft. 6 in. by 9 ft. in clear of walls; it has antæ at the east gable, and one at the west. The doorway is rude and a reconstruction, having a piece of a sculptured grave slab or cross built into one of its jambs. Much of the masonry consists of repairs, but portions of the original work remain. It is evidently one of those primitive buildings known as *Leabha*, and usually connected with the name of the founder or patron saint; hence it is called Temple Kiaran, and was originally, I would presume, the oldest ecclesiastical erection here; in its patched walls there is evidence of a reverent and anxious solicitude for its preservation. I would be disposed to consi-

der it as the Eaglais-Beg, or little church, mentioned in the *Annals of the Four Masters* at A.D. 947 and 977.

NO. III.—TEMPLE DOULIN.

This little church appears to be of considerable antiquity and of the primitive type; it has, however, been much altered and repaired. The original structure was 23 ft. in length, and 15 ft. 6 in. in breadth, out and out of walls, which are 2 ft. 5 in. thick. It has been lengthened westward by 10 ft., and has a plain pointed doorway in the west gable which finishes with plain buttresses, 2 ft. 3 in. on face and 7 in. projection; the doorway is an insertion, subsequent to the lengthening of the church. The masonry of the east gable and of a portion of the north and south walls of the original church is of a much better class than the addition, the stones being larger and better dressed and fitted, while that of the addition is of a rude description of rubble. The east window is semicircular-headed, with sloping jambs, 8½ in. wide, externally, and 3 ft. high, but having large inward splays; this gable has been raised on, about 3 ft. the original rake of the barge being visible under the later one. There is a small rectangular ope 3 ft. high and 4 in. wide in the north wall, and two of a similar character in the south; these are found in the later additions. A rude modern building has been added on at the east end; it has no architectural character, though dignified by Ware with the title of Temple Hurpan, or M'Laffy's Church.

NO. IV.—TEMPLE CONNOR.

This is at present devoted to the service of the Protestant Episcopal Church. It is in length 42 ft. 8 in., and in breadth 26 ft. 6 in. out and out of walls. Dr. Petrie gives the dimensions as 45 ft. and 27 ft. My measurements were carefully taken; the walls are 3 ft. 10 in. thick. The masonry is of a rude class of rubble work, the stones rather small and used in their natural forms, the material limestone. There is only one feature of any interest in this church—its west doorway, which is a fine piece of sandstone work, the jambs and arch being carefully wrought; the latter is semicircular, springing from moulded imposts of a peculiar section, and which return the full thickness of wall. There is no other original feature in this church save a small window, 6 in. wide externally and 3 ft. high, semicircular-headed, with large inward splays; it had been built up and concealed by a monument of the Malone family. The dimensions of this building given at p. 50, *ante*, are from Dr. Petrie's work; mine were taken during a late visit. This little building appears to have been the sepulchral chapel of the O'Connors of Connaught, and Dr. Petrie is of opinion that it was erected by Cathal, son of Conor, King of Connaught, somewhere at the close of the tenth century, as Cathal died in A.D. 1010, and during his lifetime he made a grant to Cluain for sepulture, as appears from the *Registry of Clonmacnoise*, quoted by the learned doctor:—"Thus have the O'Connors their part of that cemetery, and they gave this for their sepulture place, *i.e.*, a place for six little cells belonging to Cluain, and 48 daies to every cell, *viz.*, Tobair Ilbe 48 daies, Tamhnack 48 daies, Killmucky 48 daies, Kill M'Teig 48 daies, Tuilleage 48 daies, Kill O'Gealpa 48 daies; and the O'Connor who bestowed these lands was called Cathal O'Connor" (*Round Towers*, p. 273). Though this grant is not positive evidence of the erection of the church by Cathal O'Connor, yet there is nothing unreasonable in the supposition that immediately after the act he erected a sepulchral chapel for himself and posterity; the plain and simple character of the building would be consistent with its appropriation, and on the whole I am disposed to accept the doctor's view of the age of Temple Connor.

At the north side of the church is an enclosed space, shewn by unshaded lines; in Harris's *Ware* it is indicated as the burial-places of the family of Malones.

TEAMPUL FINGHIN.

This church with the incorporated tower stands on the northern boundary of the cemetery; in the map attached to Ware's account of the see of Clonmacnoise it is named Temple Finian, or M'Carthy's church. In the *Registry of Clonmacnoise*, already quoted from, is a statement given of the payments made by Fíneen M'Carthy Mor, for the right of sepulture for his family at Cluain; this is evidently the reason why the erection of this church has been attributed to a chief of that name. Such, however, is not the case, as has been clearly shewn by Dr. Petrie; its real founder having been St. Finian of Clonard, the friend and instructor of St. Kieran (p. 267). That the former had intimate connections with Clonmacnoise is evident from the following passage:—"A.D. 758—Gorman, Comharba of Mochta of Lughbadh (Louth), *i.e.*, the son of Torbach, Comharba of Patrick: it is he that was a year on the water of Tiprait Finghin (St. Fíneen's Well) at Clonmacnoise, and died on his pilgrimage at Cluain."—(*Annals of Tighernach*.) In reference to this passage, Dr. Petrie writes:—"The well, alluded to in the preceding passage, still bears the name given to it by the annalist, and is held in the greatest veneration; and the grave of St. Finghin himself, situated beside the church, is still used as one of the principal penitential stations of this distinguished sanctuary." But still further. In the *Chronicon Scotorum*—which only is a copy of the *Annals of Tighernach*, omitting such entries as do not relate to the Scoti or Irish people—we have an entry at so early a date as the year 1015, which proves that a church dedicated to St. Finghin then existed at Clonmacnoise, and would lead to the conclusion that it was not then a recent construction. The passage is as follows:—

"A.D. 1015.—A great wind (storm occurred) in the autumn of this year, the like or similitude of which had not been found (observed) at this time, by which was prostrated the great oak of Regles Finghin at Clonmacnoise."—(Petrie; *Round Towers*, p. 267.) There can, I think, be no doubt that those passages establish the fact of St. Finian's intimate connection with Clonmacnoise, and of the erection of a church there named after him, and which church, or *Regles*, was in existence in 1015; and further, that Temple Finghin is the church here alluded to. These extracts further inform us of the original pagan character of the site; here we have both well-worship and tree-worship. It is true that in accordance with the policy of the early christian church in these islands, the well was dedicated to a saint, and also the great oak became identified with the new faith, but there can be no doubt of their original appropriation.

This church consisted of a nave and chancel; the nave was 28 ft. 10 in. long, and 14 ft. 6 in. broad, in clear of walls, which were 2 ft. 9 in. thick on the flanks, and 3 ft. 3 in. at the gable; their present height is from 1 to 3 ft. The clearing out of the interior, at the late reparation, has disclosed the lower course of the entrance doorway, which was in the S. W. angle, and consisted of two orders of jamb-shafts and a square pier at each side; the few remaining stones shew evidence of carving on their surfaces, and are of a light-coloured sandstone. The chancel walls are nearly perfect; it measures 8 ft. 8 in. by 8 ft. 7 in., and is built of small ashlar masonry in regular courses from 8 in. to 10 in. high, neatly squared and jointed; walls are 2 ft. 9 in. thick, east gable 2 ft. 5 in. The chancel-arch is much altered and worn; it originally had three orders, but the inner one has been cut away and a plain arch of limestone substituted, which rests upon similar piers, having classical caps and bases; this alteration appears to have been made in the seventeenth century; the ornamentation of this arch is shewn on plate.

The chancel was lighted by one ope in east gable; it is plain and semicircular-headed, with large inward splays. In the

S. wall is a small square recess, and a piscina with a grooved basin of mediæval date. But the most important feature of this church is its connection with the Round Tower, which stands at the south side of the church at the junction of the nave and chancel; this building I shall now describe. It is in height to the eave of conical roof ft., and has a graceful entasis; it is built of courses of squared freestone from 10 in. to 14 in. high, there being fifty-six courses from ground to eave; the masonry is of similar character to that in O'Rourke's Tower, but not quite so well executed. The roof is conical, springing from an eave-course 9 in. deep and 6 in. projection; it was cased externally with rhomboidal-shaped blocks of stone, in courses, each reverse to the preceding one. When first I visited this place, in 1851, several of the stones of this roof were displaced, but at the north side, where the masonry was perfect, the graceful outline of the cap, having a perfectly straight surface from eave to apex, was quite apparent. In the necessary repairs lately executed, I regret to state that this original symmetry has not been preserved, the work has been clumsily executed, and the beautiful outline for ever injured. The internal diameter at ground line is 7 ft., thickness of walling 3 ft. 1 in. The doorway is at the north side, and now enters into the chancel; it is semicircular-headed, and has been much altered and cut away, as I shall presently shew. In the lower storey is a small semicircular-headed window, the internal jambs and arch of which have been chiselled away all around. All the window-opes, six in number *face the south*; two of them are flat-headed, three circular-headed, one has a flat head with a circular rebate cut round it, there is a small square ope facing N. E.; all these are of rude character, and quite unlike similar features in other towers; there are no attic windows. I have been thus minute in describing this interesting building, as it has been adduced by Dr. Petrie as a strong argument in favour of his ecclesiastical theory of the origin and uses of the Round Towers. He asserts that it "forms an integral and undoubtedly a cotemporaneous part of the structure." It is not my intention here to enter into any controversy on this subject; I shall content myself with proving beyond dispute that this tower and church are not coeval buildings, and were not erected simultaneously. Had the learned doctor examined the matter with the eye of a practical architect, he would have seen this at once. In the first place, the courses of the masonry in both buildings do not correspond, as would be the case were they jointly erected. Neither are they regularly bonded each into the other, but the masonry of the church is *toothed* into that of the tower, a process known to masons when erecting a new building in connection with an older one. Again, it is evident from the mode in which the roof of the church is connected with the tower. Had they been coeval erections, a proper water-table would have been built into the wall of tower, to protect the junction of the roof—a practice carefully attended to by all mediæval builders. Instead of this, a chase was cut in the wall, and the roof let into it. Again, it is evident from an examination of the junction of the nave and chancel with the tower; the enlarged plan of this part clearly explains itself. After the church had been built against the latter, the builders found that the circular wall of the same had an unsightly appearance in the angle of the nave, or when erecting it they conceived that they could cut out that portion of the tower and so complete the angle of this part of the church. They accordingly commenced doing so by cutting the outer stones into two concentric circles, but having got through two-thirds of the thickness of the wall, they were obliged to desist, as the tower had been so weakened by the necessary cutting for the connection of the walls of the church, and by the proximity of the door, that it shewed signs of giving way, as right over the angle of nave is a settlement, and a crack in the tower,—this crack has been

closed externally as a part of the late repairs, but internally it is still quite visible;—not being able then to carry out their intention of completing the angle of nave, they fashioned the mason-work into an angle pillar; the whole arrangement is still to be seen and examined; to the eye of the practical builder it tells its own tale as plainly as if he were looking at the whole operation. The enlarged plan shews the connection of the buildings; the dotted line shews the external circumference of the tower, and how much of it has been cut away; had the angle of nave been squared out there would not have been more than 7 in. of the wall left. The original doorway of the tower communicates with the chancel, having been found too small, the jambs at each side were cut away, as also the stones of the semicircular arch, so that the latter are at present not more than 4 in. deep. The story of both church and tower is this: at whatever time the latter was built (and I believe it to be perhaps the latest), it was long before the erection of the former. Now, we must remember that this ornate chancel arch is an insertion of probably the latter end of the eleventh century, and that the body of the church is of much earlier date. Certainly the chancel is of the primitive age, not later than the eighth or ninth century. Having elected to build the church, they determined also to utilise the Round Tower, and make the ground floor of it perform the duties of a sacristy. Finding it rather confined in dimensions, they cut away the internal face of the wall all around about 7 in. deep, and for a height of 7 ft.; to give more light they cut away the jambs and arch of the window, as well as those of the door to give sufficient room for the entrance and exit of the officiating robed clerics; to bring its external appearance somewhat in harmony with the architecture of the church, they altered the small quadrangular windows, cutting round some of them an external circular-headed rebate. All these alterations of the original structure, and their object, are quite apparent to the practical eye, and at once determine the greater age of the tower; upon this there can be no dispute. Much ado has been made about the finding of an iron hinge pivot or pivots in the window-jambs, as limiting the age of the tower. At what time iron came into use in this country, we cannot now tell; the Romans found the Cimbri and the Gauls using iron swords. But I do not want to assign this structure to a remote pre-historic period; it is just probable that it was erected within the Christian era, but not by Christian men or for Christian uses. What uses could they apply it to? It certainly was not a belfry, as there are no windows or opes for the emission of sound in the upper storey, where a bell would be hung. The opes, as before stated, are very small, mere quadrangular or curve-headed holes, all in the south side (except one), and at various leads; those, I have scarce a doubt, are mostly insertions. They have not the least resemblance to the window-opes usually found in those structures, and with their external rebates and preparation for hanging shutters, shew unmistakably the ecclesiastical uses to which this building was applied, long subsequent to its erection. That this tower was a monumental one, there can, I think, be no doubt; the base of it was excavated by Colonel Jones, R.E., and the skeleton of a man was found beneath the floor.

PUBLIC BATHS ON CITY RIVERS.

WHEN may we expect the erection of a public bath or baths in connection with the River Liffey anywhere between Island Bridge and—; but we leave the reader to fill up the hiatus. If we wait upon the Corporation of Dublin to purify the river and filter its water, we will have, we fear, to wait *ad Græcos kalendos*. Mr. Ayrton and the Thames Conservancy have, it appears,

consented to the construction of a bath off Battersea Park; and the company which has undertaken the work intends fitting up another (provided, of course, with a filtering apparatus) close to the Embankment, between the Temple and Waterloo-bridge. It was time that some such step was taken in London. The late Dr. Veron, in his *Memoirs d'un Bourgeois de Paris*, says that cleanliness was introduced into France after 1815 by the English; and the French might at any time during the last half-century have taken a brilliant revenge by introducing swimming-baths into London. In Paris, the proprietor of the principal swimming and other baths on the Seine made so much money by his speculations that his son became a baron, and married a *prima donna*; and though it cannot be expected that all efforts in the same direction will be attended with the same success, the example is worth bearing in mind. A bath might easily be established on the Serpentine; but it is not permitted even to bathe from boats in that delightful stream; for, while one local law does not allow bathing after eight in the morning, another, by an ingenious arrangement, forbids that boats shall be let out before that hour. The Thames, which washes London as the Rhine washes Cologne, is like the Rhine of Coleridge's poem, in need itself of washing; but the Thames water filtered ought to be as good as most other water, and the permission to establish a large swimming-bath on the Thames is certainly a hopeful sign, as showing that uncleanness is no longer to be encouraged by the authorities. To make such institutions doubly useful, swimming masters ought to be attached to them.

What is the Public Health Committee of Dublin about, or is the new Sanitary Association waiting to cut its wisdom-teeth?

"THE QUERIST."

"FIRST PRINTED A.D. MDCCXXXV."

WE have come to the resolution of reproducing the remarkable Queries of our countryman, the celebrated George Berkley, Bishop of Cloyne. After the lapse of 137 years, since they were first given to the public, the majority of them are as applicable to-day, to present circumstances, as they were in the middle of the eighteenth century. Some few have lost their value from the changed state of society, and the advance of our so-called civilization. Yet we purpose to reprint them all, giving a certain complement in each issue, until we complete the number, which, in the corrected edition, reaches to 595. In the year 1847 the Irish Confederation issued, among other tracts, one containing a selection from these Queries, with some introductory notes by John Mitchel, if we remember aright. We do not, however, remember any volume being published in the present century containing the entire of these remarkable Queries, or, indeed, of the other useful tracts written by the Bishop of Cloyne. Originally the author of the "Querist" did not intend to affix his name to the work, but afterwards he came to the conclusion of wisely acknowledging the authorship.

From the preface to an amended edition, published in the lifetime of the author, we quote the following words:—

"Though to feed the hungry and clothe the naked, by promoting honest industry, will, perhaps, be deemed no improper employment for a clergyman who still thinks himself a member of the Commonwealth. As the sum of human happiness is supposed to consist in the goods of mind, body, and fortune, I would fain make my studies of some use to mankind with regard to each of these three particulars, and hope it will not be thought

faulty or indecent in any man, of whatever profession however, to offer his mite towards improving the manners, health, and prosperity of his fellow-creatures."

We italicise a few words to show that George Berkley thought and felt as a social and sanitary reformer.

George Berkley was born at Kilcrin in 1684; first educated at Kilkenny, afterwards at Trinity College, Dublin, of which he was chosen a Fellow in the year 1707. He died at Oxford in 1753, and is buried in Christ Church, where there is a monument to his memory.

We may hereafter speak of his other labours, which ought to be more generally known by his countrymen; but for the present we commend his "Querist" to the careful perusal of all sections of his and our countrymen:—

Whether there ever was, is, or will be, an industrious nation poor, or an idle rich?

Whether a people can be called poor, where the common sort are well fed, clothed, and lodged?

Whether the drift and aim of every wise state should not be to encourage industry in its members? And whether those, who employ neither heads nor hands for the common benefit, deserve not to be expelled like drones out of a well-governed state?

Whether the four elements, and man's labor therein, be not the true source of wealth?

Whether money be not only so far useful, as it stirreth up industry, enabling men mutually to participate the fruits of each other's labor?

Whether any other means, equally conducing to excite and circulate the industry of mankind, may not be as useful as money?

Whether the real end and aim of men be not power? And whether he who could have everything else at his wish or will would value money?

Whether the public aim in every well-governed state be not, that each member, according to his just pretensions and industry, should have power?

Whether power be not referred to action, and whether action doth not follow appetite or will?

Whether fashion doth not create appetites, and whether the prevailing will of a nation is not the fashion?

Whether the current of industry and commerce be not determined by this prevailing will?

Whether it be not owing to custom that the fashions are agreeable?

Whether it may not concern the wisdom of the legislature to interpose in the making of fashions, and not leave an affair of so great influence to the management of women and fops, tailors and vintners?

Whether reasonable fashions are a greater restraint on freedom than those which are unreasonable?

Whether a general good taste in a people would not greatly conduce to their thriving? And whether an uneducated gentry be not the greatest of national evils?

Whether customs and fashions do not supply the place of reason in the vulgar of all ranks? Whether therefore, it doth not very much import that they should be wisely framed?

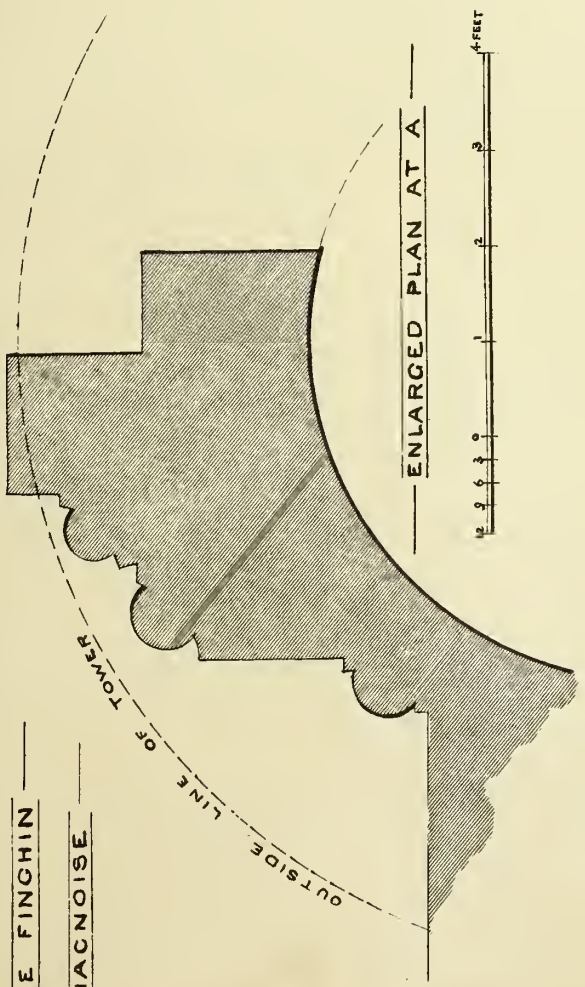
Whether the imitating those neighbours in our fashions, to whom we bear no likeness in our circumstances, be not one cause of distress to this nation?

Whether frugal fashions in the upper rank, and comfortable living in the lower, be not the means to multiply inhabitants?

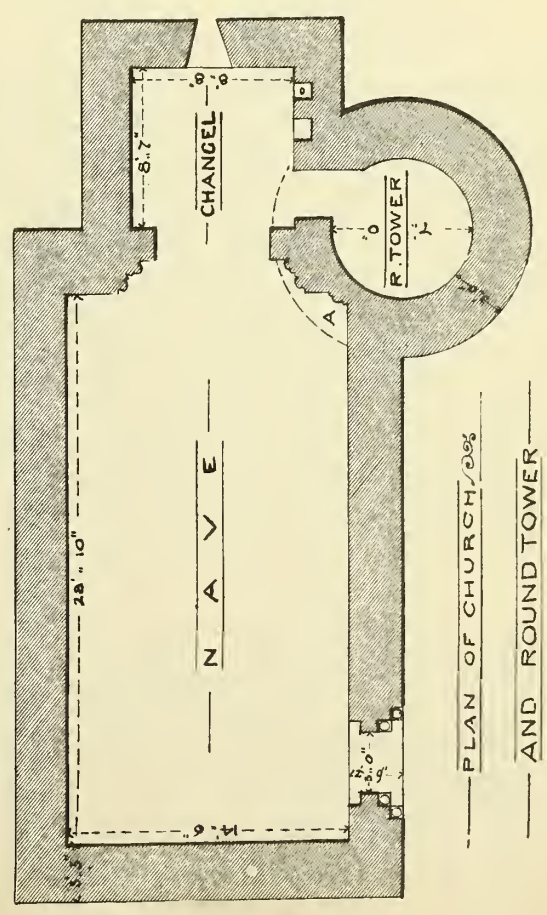
Whether the bulk of our Irish natives are not kept from thriving, by that cynical content in dirt and beggary, which they possess to a degree beyond any other people in Christendom?

Whether the creating of wants be not the likeliest way to produce industry in a people? And whether, if our peasants were accustomed

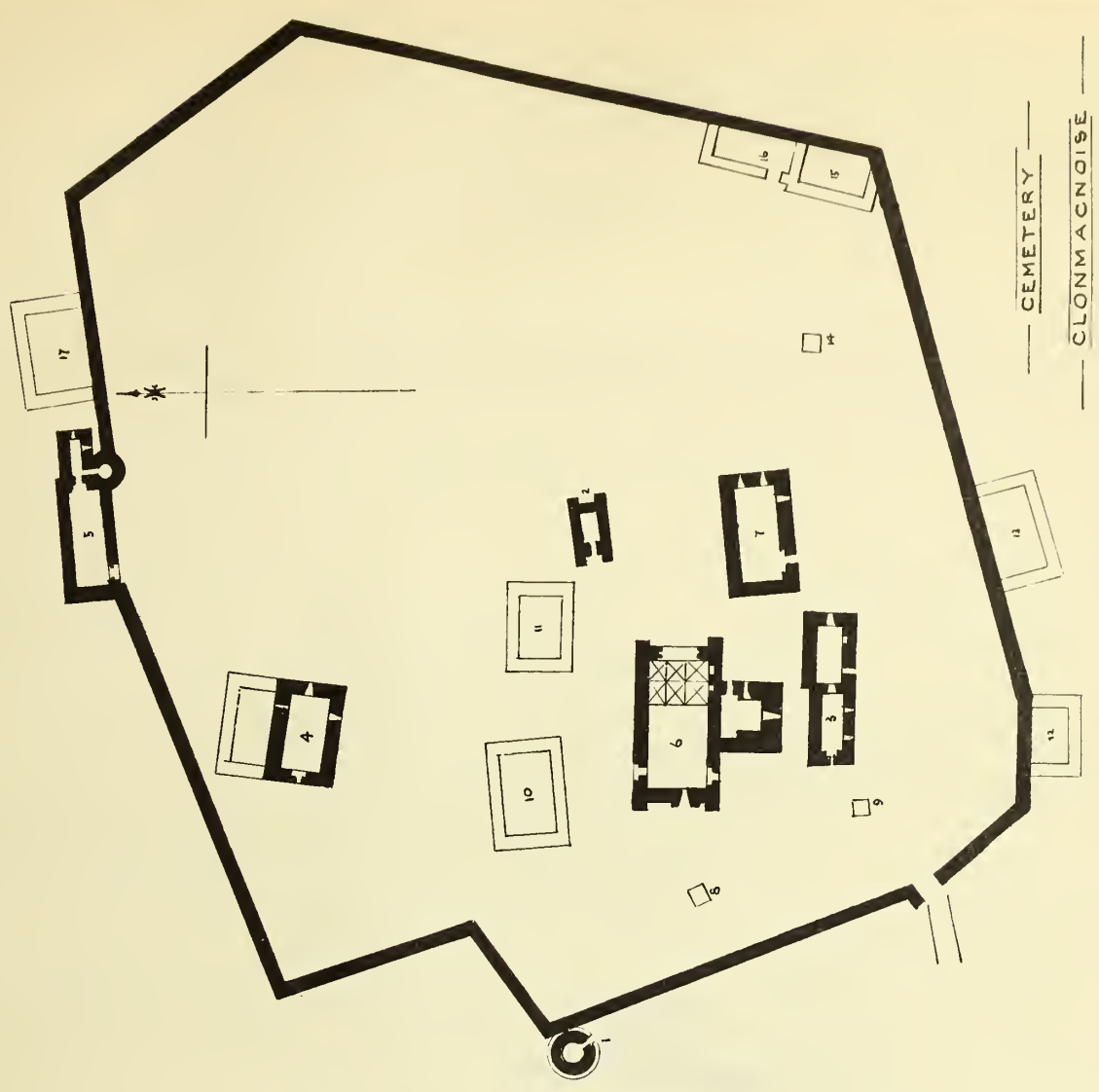
— TEMPLE FINCHIN —
— CLONMACNOISE —



— ENLARGED PLAN AT A —



— PLAN OF CHURCH/20% —
— AND ROUND TOWER —



— CEMETERY —
— CLONMACNOISE —



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to eat be 1 and wear shoes, they would not be more industrious?

Whether, other things being given—as climate soil, &c.—the wealth be not proportioned to the industry, and this to the circulation of credit, be the credit circulated or transferred by what marks or tokens soever?

Whether, therefore, less money, swiftly circulating, be not in effect equivalent to more money slowly circulating? Or whether, if the circulation be reciprocally as the quantity of coin, the nation can be a loser?

Whether money is to be considered as having an intrinsic value, or as being a commodity, a standard, a measure, or a pledge, as is variously suggested by writers? and whether the true idea of money, as such, be not altogether that of a ticket or counter?

Whether the value or price of things be not a compounded proportion, directly as the demand, and reciprocally as the plenty?

Whether the terms crown, livre, pound sterling, &c., are not to be considered as exponents or denominations of such proportion; and whether gold, silver, and paper are not tickets or counters for reckoning, recording, and transferring thereof?

Whether, the denominations being retained, although the bullion were gone, things might not, nevertheless, be rated, bought and sold, industry promoted, and a circulation of commerce maintained?

Whether an equal raising of all sorts of gold, silver, and copper coin can have any effect in bringing money into the kingdom; and whether altering the proportions between the several sorts can have any other effect but multiplying one kind and lessening another, without any increase of the sum total?

Whether arbitrary changing the denomination of coin, be not a public cheat?

What makes a wealthy people? Whether mines of gold and silver are capable of doing this? and whether the negroes, amidst the gold sands of Africa, are not poor and destitute?

Whether there be any virtue in gold, or silver, other than as they set people at work or create industry?

Whether it be not the opinion or will of the people, exciting them to industry, that truly enricheth a nation? and whether this doth not principally depend on the means for counting, transferring, and preserving power—that is, property of all kinds?

Whether, if there was no silver or gold in the kingdom, our trade might not nevertheless supply Bills of Exchange sufficient to answer the demands of absentees in England or elsewhere?

Whether current bank notes may not be deemed money? and whether they are not actually the greater part of the money of this kingdom?

Provided the wheels move, whether it is not the same thing, as to the effect of the machine, be this done by the force of wind, or water, or animals?

Whether power to command the industry of others be not real wealth? and whether money be not, in truth, tickets or tokens for conveying and recording such power, and whether it be of great consequence what materials the tickets are made of?

Whether trade, either foreign or domestic, be, in truth, any more than this commerce of industry?

Whether to promote, transfer, and secure this commerce, and this property in human labour, or, in other words, this power be not the sole means of enriching a people, and how far this may be done independently of gold and silver?

Whether it were not wrong to suppose land itself to be wealth? and whether the industry of the people is not first to be considered as that which constitutes wealth, which makes even land and silver to be wealth, neither of which would have any value, but as means and motives to industry?

Whether in the wastes of America a man might not possess twenty miles square of land, and yet want his dinner, or a coat to his back?

Whether a fertile land and the industry of its inhabitants would not prove inexhaustible funds of real wealth, be the counters for conveying and recording thereof what you will—paper, gold, or silver?

Whether a single hint be sufficient to overcome a prejudice? And whether even obvious truths will not, sometimes bear repeating?

Whether, if human labour be the true source of wealth, it doth not follow that idleness should of all things be discouraged in a wise state?

Whether even gold or silver, if they should lessen the industry of its inhabitants, would not be ruinous to a country? And whether Spain be not an instance of this?

Whether the opinion of men, and their industry consequent thereupon, be not the true wealth of Holland, and not the silver supposed to be deposited at the bank at Amsterdam?

Whether there is, in truth, any such treasure lying dead? and whether it be of great consequence to the public that it should be real rather than national?

Whether, in order to understand the true nature of wealth and commerce, it would not be right to consider a ship's crew, cast upon a desert island, and by degrees forming themselves to business and civil life, while industry begot credit, and credit moved to industry?

Whether such men would all set themselves to work? Whether they would not subsist by the mutual participation of each other's industry? Whether, when one man had, in his way, procured more than he could consume, he would not exchange his superfluities to supply his wants? Whether this must not produce credit? Whether to facilitate these conveyances, to record and circulate this credit, they would not soon agree on certain tallies, tokens, tickets, or counters?

Whether reflection in the better sort might not soon remedy our evils? and whether our real defect be not in a wrong way of thinking?

Whether it would not be an unhappy turn in our gentlemen if they should take more thought to create an interest to themselves in this or that borough than to promote the real interest of their country?

Whether if a man builds a house, he doth not, in the first place, provide a plan which governs his work? and shall the public act without an end, a view, a plan?

CORRESPONDENCE.

"ACTION AGAINST A BUILDER."

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—The report, under the above heading, of the case of Rickard v. Echlin, and which appears in your issue of the 15th ult., is so incomplete, garbled, and manifestly unjust to me as defendant, that I must take exception thereto. You say that "Rickard borrowed £400 from the Board of Works for the purpose of building a house at Oberstown, Lusk." There was no such allegation at the trial; for it was proved by Mr. Penny, a gentleman connected with the Board of Works, that the Earl of Howth, the owner, was the borrower, Rickard having, as tenant, only a life interest in the farm. You picture graphically the ill-constructed, ruinous condition of the house, and the array of witnesses produced to sustain plaintiff's case; but you totally suppress how those witnesses were made to swallow their words on cross-examination, as to the quality of the wall and ceiling plaster, the glass, the slates, &c. You also say that "Mr. J. J. Lyons and Mr. Regan were for the defendant." This is a cool way of disposing of the former gentleman's admitted competency to give rebutting evidence of "the house being honestly and substantially built"—better in some particulars than specified; defective, no doubt, in certain minor details, but such defects greatly exaggerated; that the wall and ceiling plastering materials were excellent, but the stone

admitted on both sides to be a composition of limestone and calp, used from Rickard's own quarry, should, owing to its damp, weeping nature, have never been used in the house, and was the sole cause of the main defect. The wall plaster, missing tile in the hall, and a slight unevenness on the kitchen tiles (not to be wondered at, considering the traffic of eleven inmates, including seven boys, on a new floor), a couple of cracked hearthstones, and an unfinished door-saddle, were about the sum total of the minor details referred to by this witness, fully corroborated by Mr. Regan and by the Inspector for the Board of Works (also an architect, and whose evidence you ignore altogether), who certified for my payments to the full extent of £400, and the completion of the works according to plan and specification to his satisfaction.

If your journal really represents the classes which it professes to do, I submit that, instead of indulging in the *suppressio veri*, you ought more properly and in justice adopt *audi alteram partem* as your motto, especially in a matter most seriously affecting a builder's capacity and credit, and his future means of livelihood. MATTHEW ECHLIN.

Rush, 26th August, 1872.

[We willingly give place to our correspondent's letter, but we do not acknowledge that our report was "incomplete, garbled, and unjust." It merely stated the main points in the case, condensed so as not to occupy too much of our space. Our correspondent is correct in stating that the Earl of Howth applied for the loan for Rickards; but we understand that Rickards has to pay the yearly interest. Surely he had a right to see that the house was properly built. The fact of the Earl of Howth borrowing, or applying for, the money did not affect in any way the plaintiff's case. Our correspondent manifestly states the case on which his counsel relied before the jury; but by their verdict they proved unmistakeably that the house was defectively built, and seriously so, or they would not have awarded such heavy damages. We did not (as our correspondent alleges) picture the case of one party more than another.—ED. I. B.]

NOTES OF WORKS.

NEW CHURCH, KILLOWEN.—This church, which was consecrated early in the last month by Cardinal Cullen, is early fourteenth century Gothic. The plan is cruciform, the length being 82 ft. 6 in., and the breadth at transepts 60 ft. the width being 26 ft. The walls are built of granite (syenite) uncoursed, a variety of a lighter colour being employed in the dressings and chiselled work. The roof is open-timbered, stained, and varnished. Dungannon freestone is used in the altar steps. The altar is Italian marble, from Messrs. Chapman & Son, of Dublin, and the window over it is from Messrs. Mayer, of Munich. Mr. Richard Hynes, Newry, was the architect. We think Irish or English marble could have been as readily supplied as Italian, and quite as good, with credit and profit to all parties. But then it would not be fashionable to overlook Carrara or Civita Vecchia for the purpose of paying a compliment to Kilkenny or Connemara. Oh, dear, no.

THE IRON AND COAL TRADES.—The *Daily News* says:—If we may implicitly trust the reports from the iron districts, the fierceness of the demand for iron at the present prices is already abating. Dealers in iron goods are contracting or postponing their purchases, and, under these circumstances, we are warranted in believing that the exceptional causes which have enhanced the price of coals will operate with diminished intensity, although the impetus given to the demand may not immediately cease to be felt in its consequences.

SAVE YOUR FUEL.

THE President of the Mechanical Science Section, British Association, in his address during recent meeting, took for his subject the all-important matter of coal, and how to economise it. The increase in consumption and the rise in price are startling facts (observed Mr. Bramwell). The supply, after all, is but a finite quantity, and unlike the fuel wood, which grows year by year to replace the annual consumption: we are, therefore, dealing with a store that knows no renewal, and if we waste it, the sin of that waste will be visited upon our children; and it thus becomes us to look upon coal as a most precious, valuable, and limited deposit, of which we are the stewards and guardians, justified no doubt, in using all that we require for legitimate purposes, but most criminal in respect of all that we waste, whether that waste arise from wilful indifference or from careless ignorance—an ignorance culpable as the indifference itself. He then discussed the question of finding sources other than coal for motive power, and pointed to the tide-mill, and suggested that, in the cases of large manufacturing districts within a few miles of the sea, where there is a rise and fall of the tide, coupled, in the outset at all events, with natural indentations of the coast which might be comparatively readily dammed up for the storage of the water, there such storage should be made that the water should be set to work turbines of the best kind (turbines which will work with very nearly the same per-centage of the total power given out by the water at any particular moment, whether they are immersed or whether they are not); that these turbines should be employed in pumping water at a high pressure into Armstrong accumulators; and that pipes should be laid on from those accumulators to the neighbouring manufacturing town, and should there deliver their power to the consumers requiring it, to be used by them in water-pressure machines. Suppose a beginning were made with the city of Bristol, where the rise and fall of the tide might safely be taken at 24 ft. Half a square mile of water enclosed would, after the most lavish deductions for loss, yield, in Bristol at least, 5,000 horse-power,—probably sufficient to replace the whole of the power of the stationery engines now at work in Bristol. Looking at the opportunity which good turbines give of utilising the power residing in water under constantly varying conditions—looking at the fact that, by Sir William Armstrong's arrangements, this power may be transferred to an extremely small quantity of water under high pressure, and that therefore such water may be transmitted for many miles through pipes at low velocities, even although those pipes be of no great size,—he could not help thinking that there is here open to the talent of the mechanical engineer a new field of enterprise, and one which, if successful, would tend to economise fuel, and to leave more of it for consumption in metallurgical operations, and in other operations requiring heat. He reminded the Section of what has been done in the town of Schaffhausen by a public-spirited inhabitant in the way of utilising the water-power of the Rhine, and of laying it on, so to speak, to every man's door. This has been accomplished by erecting turbines worked by the river, delivering their power to endless wire-ropes, carried over pulleys placed along the Rhine. This rope gives off power at the end of each street abutting on the bank, and that power is conveyed along those streets by a shaft in a channel under the paving. Each manufacturer can make his own communication with these principal shafts, and thus obtain the power he may require. He then adverted to the loss which takes place in the mine, though of late more economic systems of working have come into use. He would not suggest Government interference on this point, believing it would be more mischievous than beneficial; but in the absence of any such interference, it follows, from the ordinary principles which

regulate commercial transactions, that a considerable percentage of coal in many districts will never be brought to the surface, because at the present time it does not pay to bring it. Thus in the very outset we are wasting fuel. But the prevention of this source of waste is a question quite as much for the mining engineer and the political economist as for the mechanical engineer. The question of worth of fuel when brought to the surface may be divided into two branches—the domestic and the manufacturing. First, the domestic use, a highly important branch of the subject. It is believed out of the total of 98,000,000 or 99,000,000 of tons of coal which in 1869 were retained for home use, 18,500,000 tons, about one-fifth of that quantity, were consumed for domestic purposes (about 10,000,000 being exported). Our wasteful treatment of this must be noticed. We put a grate immediately below and within a chimney, and as this chimney is formed of brickwork, by no possibility can more than the most minute amount of heat be communicated from the chimney to the room. On this grate we make an open fire. Fire cannot burn without air, and we seldom provide any means whatever for the air to come in to the fire. The unhappy fire has, as it were, to struggle for existence. In a well-built house especially has it to struggle, for the doors and windows shut tightly. The result is, that the fire is always smoking, or is on the verge of smoking. We breathe the noxious gases, and we spoil our furniture and pictures; nevertheless, happily for us, the fire does succeed in getting supplies of air which, even although insufficient for the wants of the chimney draught, do renew the air of the room. If, to satisfy the demands of the chimney, and to stop its smoking, a window is left a little open or a door set ajar, we complain of draughts; so that there we are, with an asphyxiated fire, our smoky rooms, and our draughty rooms. Moreover, the fire, being immediately below the chimney, the main part of the conducted heat inevitably goes up it and is wasted, leaving the room to be warmed principally, if not entirely, by the radiated heat; and we do and suffer all this in order that we may see the fire and be able to poke it. He confessed if there was no cure for the evils just described other than the close stoves of the Continent, with the invisible fire, and with the want of circulation of air in the room, he would rather put up with our present domestic discomforts, and even with the loss of heat, than resort to the close stove as a remedy. But there are modes by which freedom from smoke, freedom from draught, efficient ventilation, and utilization of the heat, may all be combined with the presence of the visible pokeable fire. He reminded the Section of the paper read before it at the Norwich Meeting in 1868, by Capt. D. Galton, in which he so clearly described his admirably simple invention of fire-grate. This consisted in putting a flue to the upper part of the fire-grate, which flue passed through a brick chamber formed in the ordinary chimney, which chamber was supplied with air from the exterior of the room by a proper channel, and then the air, after being heated in contact with the flue in the chamber, escaped into the room by openings near the ceiling, so that the room was supplied with a copious volume of warm fresh air, which did away with all tendency to draughts from the doors and windows, and moreover furnished an ample supply for the purpose of ventilation and combustion. These fire-places, he regretted to say, have been but little used in England, from a cause to which he would hereafter advert—a cause which, he believed, stands in the way of the adoption of improvement generally. The merits of these fire-places were at once acknowledged by the French, who made the most careful and scientific investigation of their working, and they found that with such fire-places three times the effect was obtained from a given weight of coal that could be got with those of the ordinary construction. No doubt there are many other plans by

which the same end as that attained by Capt. Galton may be arrived at, and yet we go on year after year building new houses, making no improvement, exposing ourselves to all the annoyances, and, worst of all, wasting the precious fuel. Assume that we were to set ourselves vigorously to work to cure this state of things, can it be doubted that in ten years time we might halve the consumption per household, and do that not only without inflicting any discomfort, or depriving the householder of any gratification, but with an absolute addition to warmth and an increase of cleanliness—a benefit to health and a saving of expense? Moreover, it must be remembered that, with the imperfect combustion of domestic fires, large volumes of smoke are poured into the air. We know how much freer from smoke town atmosphere is in summer time than it is in winter time, and this simply on account of the smaller quantity of coal that is being burnt. Suppose that we could reduce the total consumption, both in summer and in winter, by 50 per cent., what an enormous boon that would be even in the one matter of a pure atmosphere.

THE ROYAL ARCHÆOLOGICAL INSTITUTE AT SOUTHAMPTON.

We continue our report of the proceedings of above society at Southampton, for which we are partly indebted to the London *Standard*. We have no doubt but that the particulars we furnish will be read with some degree of interest in this country, where archaeologists and antiquarians have seldom been sparse, and even where few have been indefatigable and industrious in their labour of love.

Silchester on Tuesday was begun in as heavy a shower as ever was faced by excursionists out a-pleasuring. The Rev. Mr. Joyce, through whose representations to his Grace the Duke of Wellington the excavations have been made, conducted the party over this ancient Roman city. To describe it without engravings and plans in more than general terms is impossible; but we may speak of it as containing a hundred English acres within the walls, and their circuit as being more than $1\frac{1}{2}$ mile. The walls are lofty as well as thick, being from 15 ft. to 18 ft. in height, and at least 9 ft. through their substance; they are built in courses with bondings, and concreted in the usual style, the main mass of the materials being flints, although various stones, from Oxfordshire and Bath are largely commingled. The amphitheatre is outside the walls, and about 250 yards away from them. It has not yet been opened out; but, as described in A.D. 1760, it appears to have had five ranges of seats on each side, not dressed with stone, but formed by grassed banks. Its longer diameter is about 60 yards, and it had two entrances, or vomitoria—one opposite to the small east gate of the town, through which the population could emerge towards it. Small tablets of bone have been found in the soil, which may have been the tickets of admission to the performances. Near at hand is an ancient well, over which it is probable there might have been a nymphet or fountain-temple. The present church, which is within the walls, is thought to be placed on the site of the temple. Some difficulty had arisen in the first stages of the work of exhumation by the want of knowledge of the existence of the true east gate of the city, and by the old surveyors having attempted to get over the difficulty of the street not leading directly up to any opening in the walls by drawing the line of street diagonally in their maps. When the Ordnance surveyors came into the district some short time ago they found, by projecting geometrically the line of the Roman great road, that it cut the site of Silchester near the farm buildings, and in consequence of this indication the ground has been within the past month opened and the actual form and dimensions of the east gate made out by the foundations which have been met with. The entrance was 28 ft. wide, and on one side (the proper left) is seen a semicircular tower buttressing the termination of the curtain wall, and within the entrance two guard-rooms. The other side (proper right), the excavations not being open, exact details cannot be given. The outer wall of the city was next perambulated from the east gate to the south gate, where the guard-room also remains. From this spot a view may be obtained which will give some idea of the extent of this fortified enclosure, one of the most important

of the strongholds recorded in the Itineraries. This, the ancient Calleva, was at an earlier period the *Caer Segont* of the Britons, and the capital of a tribe of *Attabates* from *Belgic Gaul*. The authenticity of the determination has been confirmed by the intersection of circles geometrically drawn upon the map from three points—namely, London, Winchester, and Old Sarum, according to the distances stated in the Roman Iters. The excavations which have been made are of the most extensive character, the most important being that which has laid bare the foundation walls of the magnificent Forum. There are, however, two other blocks of buildings which deserve to be mentioned. Of these one presents the general form of a Roman house, with the quadrangle in the centre surrounded by an ambulatory on three sides. Here the fireplace remains which warmed by means of a hypocaust the triclinium or dining-room, and the adjoining apartment. In the hypocaust there remain the sloping tiles which let out the hot air into the angles of the walls. Here was found the remains of a Roman strong box in the place where it had been let into the ground; upon it, for the security of the treasures it contained, a trusty slave would have slept to guard it during nights. Various articles were met with in the cavity amongst the humus into which the wood of the chest had decomposed; but no money was found. The iron hinges and fastenings are preserved in the museum of curiosities, for which a shed has been erected on the site; and in which the visitors were also shown a variety of objects from other parts, and a volume of admirable drawings of a large number of the chief antiquities, executed by Mrs. Joyce with great precision and skill. The second block is another house of very large dimensions and fine structure, which is remarkable as showing traces of the superposition, after successive intervals of time, of four edifices; and as its situation is not far from the Forum it may be regarded as having been the residence of a man of eminence connected with the government of the place.

The Forum was one of the noblest in this country, being 313 feet on its longest and 276 upon its shortest side. It is divided by a separating wall run right across in two distinct sections—the Forum and the Basilica. Chambers of various dimensions occupy the outer portions of these buildings, each of which has contributed its particular relics so characteristically that Mr. Joyce has ventured to assign the actual purposes of every one of them respectively. In the "Treasury" was found a relic of the highest antiquarian reverence—a Roman legionary eagle. The standards of the cohorts have occasionally been met with, although such examples are very rare, but a legionary eagle is unique. The bearer of this Imperial standard was always a man of noble birth and rank, and the utmost respect was paid to this the highest of the Roman emblems. This particular relic has been compared with the eagle on Trajan's Column, and its authenticity thus established. In another apartment the finding of the hooks by which meat was hung has shown it to be a butcher's shop; coins in another, the money-changer's; oysters in another, that it was the fish-monger's, and so forth. In like way the comfortable hall for the merchants (60 feet by 30 feet in dimensions) has been made out, showing that aldermanic notions of personal comfort are not entirely of mediæval or 19th century development. The Basilica or court of justice itself is of really noble proportions—276 feet long by more than 60 feet broad. At either end is an apse, where the *duumvir*, or judge, presided over the judices or jury, who sat in court behind him. Along one side of the entire length of this Basilica there is an interior foundation, seemingly for the support of the stone pillars of a gallery for an audience; some portions of these pillars, 2 feet 10 inches in diameter, with fragments of handsome capitals, remain scattered about. At one end of the basilica the semicircular apse has been cut across and replaced by a square recess, probably about the time of Constantine.

After Silchester came Basingstoke, where those two singular pinnacles of masonry which every one who travels along the South-Western Railway sees close to the station, were first inspected. These are portions of buildings having a very singular origin but not a very ancient date. They are the ruins, all that remain, of a "Brotherhood of the Holy Ghost," for the foundation of which a licence was obtained from Henry VIII., by Sir William, afterwards Lord Sandes, and Bishop Fox of Winchester. The members were without vows, and their chief duties were the education of the youths of the town in literature. The fraternity escaped the dissolution, and remained until the act of parliament passed in the reign of Edward VI. cancelled all free chapels and chantries in the kingdom. Basing-house—so celebrated for the defence made by John Paulett, Marquis of Winchester, against the parliamentary forces, came next in the route. Garri-

soning his magnificent house with a resolute band of trained soldiers, the marquis held it for two years until it was stormed by Cromwell, who, in revenge for the obstinate resistance, burnt the noble fabric to the ground, being fitter, as he said, for the residence of an emperor than a subject. The marquis lived until the restoration, but never received any recompense for his loyalty nor for his losses—the plunder on the sacking of his house amounting, it is said, to two hundred thousand pounds in cash, jewels, and rich furniture. To-day the walls of that once princely pile are masked beneath the soil, and only massive mounds—the relics seemingly of earlier earthworks—mark the spot of "*Amez Loyauté*." There is nothing to call for special notice in the church saving the ancient glass which has been collected together in the terminal window of the north aisle, and which has been long celebrated as rivaling in perfection the famous glass at Fairford in Gloucestershire.

On Wednesday there was a morning meeting of the Historical Section in the Hartley Institute, when papers were read by the Rev. J. P. Bartlett, "On Romano-British Pottery found in the New Forest;" "On Monastic Decorated Tiles found in the South of Hampshire," by Mr. B. W. Greenfield; and "On the Alien Priors of the Isle of Wight," by the Rev. Edmund Venables, precentor of Lincoln. This last was full of information of the kind properly valued by the archæologist and the historian.

In the afternoon a visit was made by special steamer to the Isle of Wight, where the church of Newport and the castle of Carisbrooke were thoroughly examined, and this final excursion carried out in the happiest manner, under the brightest of skies and most beautiful weather. The examination of the very notable collection of Roman, Saxon, and British antiquities in the local museum was got through. A *conversazione* at the Hartley Institute terminated the proceedings.

On Thursday the sections opened for the reading of papers at ten o'clock, when the Rev. J. H. Austen and the Venerable Archdeacon Wright produced essays of marked excellence respectively, "On the Vestiges of the Early Occupation of the South of England," and "On the Domus Dei at Portsmouth."

The concluding meeting was held at noon, the Lord Henry Scott presiding, when the customary courtesies passed between the municipal and local authorities and the members of the Institute, hearty thanks being voted to the Mayors of Southampton, of Basingstoke, and of Newport, as also to the Master of Holy Cross and the chairman, for the hospitable entertainment they had given during the congress.

A motion was proposed by the Rev. Kr. Kell, and carried unanimously, "That the meeting, learning with regret the proposed destruction of Cæsar's Camp at Wimbledon, wishes to represent to the council of the Archæological Institute their earnest desire that such steps as they may think best should be taken for the preservation of this and others of our National Monuments."

THE REAL WORKING MAN.

SUPPLEMENTARY to our own notice of the life and labours of the late Mr. Brassey, published in our last issue, we extract the following from the *London City Press* :—

Mr. Brassey was certainly a self-made man in the sense in which the term is usually employed, but he did not commence life with the proverbial half-crown and a walk up to London. On the contrary, the house in which he was born, in 1805, was a very good and comfortable one, and he enjoyed the perhaps somewhat questionable advantage of being able to trace his descent from a member of that band of thieves, cut-throats and adventurers who came over with William the Conqueror. It is by no means certain that young Brassey was the gainer by the start thus secured for him, inasmuch as the "half-crown men" are able to work out any scheme or plan that comes to their minds, provided no expenditure of capital is involved, their position being such that no risk is incurred of losing caste, as they have all to gain and nothing to lose in the way of social position, while a man who starts, weighted with an average amount of respectability, has to take his chance with fortune, whom he woos for better or for worse. Be that as it may, Thomas Brassey commenced life with fair prospects. He was at school until he reached the age of sixteen, and then went into the office of a land-surveyor, to whom he was articled, and who happened to be the agent for Mr. Price, the owner of the town of Birkenhead—a very different place then from what it now is, seeing that three years before Brassey left school it consisted of four houses only. However, he seems to have found even here a sphere for

his energies, or, what is more likely, he made one, and he got on so well that at the age of twenty-six he felt himself able to maintain not only a house but a home; in other words, he married a neighbour's daughter, and was fortunate enough to secure for a wife a lady who not only entered heartily into his plans and projects, but whose good sense and enterprising spirit tended very materially to shape the course which afterwards made him famous. During his residence at Birkenhead he met George Stephenson, who was at that time superintending the construction of the Liverpool and Manchester Railway, and who seems to have developed or to have planted in Brassey's mind a strong belief in the railway system. Looking at the matter from our stand-point, there seems of course nothing very wonderful in this; but it must be remembered that Brassey had at the time what was evidently a flourishing business, and that the railway upon which Stephenson was engaged was the first that was opened in England for passenger traffic. The future contractor was far-sighted enough to see that the new opening promised well, and his wife, who was consulted in the matter, being, if anything, even more sanguine about it than himself, he tendered for the first contract that turned up which happened to be the Denton Viaduct, on the Grand Junction Railway. He went to work, however, in no reckless spirit, for on this occasion, his tender was rejected, being £5,000 too high. The caution indicated by this incident was characteristic of the man through life, and it is stated that he tendered unsuccessfully for works in the course of his career to the extent of a hundred and fifty millions sterling. One reason of this was, probably, that he paid for his work. Some men pride themselves on the cleverness which manifests itself in getting their work done at half price, and so securing large profits by grinding and screwing down those who served them. Brassey had no faith in this. He paid every man employed by him on a liberal scale, and the result was that in return for a fair day's wage he got a fair day's work—a point which employers generally would do well to consider.

Nothing daunted by his first failure, he tried again, and this time with better results, gaining his first appointment as contractor for the Penkridge Viaduct, and ten miles of adjacent railway. The late Mr. Locke, M.P., was the engineer on this line, and he was so pleased with the manner in which the work was carried out, that he persuaded him to come to London, and undertake some works on the London and Southampton line, then being formed. From this time his course was clear, and without attempting to enumerate the various works upon which he was engaged, we may simply note that between 1835 and 1870, he undertook no less than 173 large contracts. He was the first to go out as a railway contractor to other countries, and in Europe, Asia, America, and Australia, he labored successfully in this capacity. It is stated that, at one time, he, in conjunction with his partner, employed 80,000 men, and was engaged in works involving an expenditure of seventeen millions. Amongst the most important of the operations in which he was concerned were the Paris and Rouen Railway, the Grand Trunk Line of Canada, the Italian and Moldavian, and the Great Northern Railways; and it is stated that on one of the continental lines constructed by him, eleven languages were spoken.

A distinguishing feature of his character was his intense love of work. He was no mere money-grubber, toiling on long after all need for toil had passed, simply for the sake of heaping up riches; but he continued in harness because he felt a keen pleasure in seeing the results of his efforts on all hands. Losses came, and he bore them without troubling himself much about them; but the failure of the first attempt to make an opening for the Mont Cenis Railway brought on an illness, from which he never seems fully to have recovered. As may be supposed, throughout life he displayed a singular amount of energy and perseverance, so that it was said of him, that "if he'd been a parson, he'd have been a bishop; if a prize-fighter he would have had the belt." In business transactions, his dealings were thoroughly honourable at all times. Of him it might most emphatically be said his word was his bond, and his whole career forms a standing protest against the common notion that success in business cannot be enjoyed without some resort to trickery and double dealing. He seems to have had no fear of being overreached, and no wish to overreach; and his biographer, after admitting that, in his delineation of Mr. Brassey, he has "drawn a character of a somewhat perfect kind," adds, by way of explanation, "I have been compelled to do so." The story of such a life would, under any circumstances, be worth studying; but when told, as it is here, by a skilful and entertaining narrator, its interest and value are, of course, greatly increased.

MR. THOMAS HOLLOWAY'S GIFT.

MR. THOMAS HOLLOWAY, of pill and ointment celebrity, is not unlikely to act the part of a second Peabody in the cause of suffering humanity. He has made some millions of money in his career, and expended some millions. If we are not mistaken, we believe it was Mr. Holloway who lately offered to expend a quarter of a million on some philanthropic project which would permanently help the working classes and the poor, if some practical plan could be shewn how to do it without having the effect of pauperising or humiliating those for whom it was intended. His desire was to permanently assist and elevate the lowest classes of his fellow-countrymen, and stimulate them to exertion, by rendering them practical assistance in helping themselves, without making them dependent alone on the aid they would receive. His latest act is the founding of a new lunatic asylum. Our contemporary, the *Builder*, illustrates the design in its issue of the 24th, to be erected for the unsuccessful of the middle classes at St. Anne's Heath, Virginia Water, Windsor. The design is by Messrs. Crossland, Salomons, and Jones, to which the first premium has been awarded. The architects have avoided the ordinary gallery system, their experience being, they say, that it does not conduce to the comfort or general management of the building; and in this matter medical men and general managers of asylums consulted have confirmed them. The general form of the building is such that all day-rooms, dormitories, and single rooms have a south and south-western aspect, and the mode of communication is by corridors 7 ft. wide. There are four classes on the male side—first-class patients, second class patients, sick and feeble, and excited patients. The female side similarly arranged:—First-class patients, 35; second-class, 30; third-class, 15; fourth-class, 20. All the feeble patients are to be on the ground and first floors. Provision is also made for fever and contagious cases on the upper floor, with separate stairs with dormitories for five or more beds, spare rooms, separate kitchens, &c., for nurses, with cubical contents in dormitories of from 1,600 ft. to 2,000 ft. for each patient. The buildings are to be of red bricks, with stone arches and string-courses, small turrets carried up over the staircase, and made available for ventilation. A large tower carried up over the central staircase will contain a large tank for the supply of all the other cisterns, and the building consists of three storeys, the upper story being exclusively devoted to sleeping accommodation. A special compartment is to be constructed in a large chimney to be used for extracting foul air from the drains.

THE CAMBRIAN ARCHÆOLOGICAL ASSOCIATION.

THE annual meeting of this prosperous association was held at Brecon. It is many years now in existence, and has rendered important service to the history and archæology of Wales since its formation. Several societies connected with Welsh antiquities and Welsh history had existed before its establishment, but these concerned themselves principally with pure Welsh literature and music. These were the Cymreigyddion, the Cymmrodorion, and other similar societies. Very little was done by them except in the way indicated. The principality teemed with objects of interest to the student of antiquities. Many of these had suffered sadly at the hands of the Vandals and the ignorant. Many a maenhir and many a cromlech which existed some century and a half ago had disappeared before this association was started, and many more were in the way of imminent destruction; while the ruins of our old castles and religious houses were utterly neglected, if not worse treated. The old school of antiquarians had not done much to preserve these interesting relics of remoter ages, but confined themselves principally to a study of the Druids, bards, and minstrels—very valuable of course in its way. The association exerted itself

nobly for the preservation of those monuments of antiquity, of which Wales has a fair share, and its labours in this respect have been crowned with success. This has been brought about by means of effectual remonstrances with landowners and others, and by educating, as it were, the people to regard the value and importance of such objects. On the whole their endeavours in this way were met by the readiest assent on the part of the landowners and the inhabitants at large. Considerable light on the history of Wales has also been thrown by the pages of their well-conducted journal—the *Archæologia Cambrensis*—for many years edited by the late illustrious Mr. Longueville Jones, and now by the eminent Welsh scholar and lexicographer, the Rev. D. Silvan Evans.

The association did well in selecting Brecon as their place of meeting, for, apart from any antiquarian associations, Brecon is a most delightful place, charmingly situated on the banks of the Usk and the Honddu, with the Beacons rising to a great height at a short distance. In fact, it is one of the loveliest places—and there are several—in Wales. It has also the advantage of being centrally situated, and of possessing excellent railway communication, which facts will doubtless go far to secure the success of the meeting. But Brecon has been selected not so much for these reasons as that it possesses considerable attractions for the antiquarian, and is the centre of a district rich with the remains of the ancient British people, the Romans, and the Normans.

An excellent local committee has been formed, under the Presidency of Sir Joseph R. Bailey, Bart., M.P. The museum is well stocked with highly interesting and curious relics in the way of flint weapons, British and Roman antiquities, bronzes, seals, coins, &c. From Tuesday to Friday was devoted to excursions in the neighbourhood, the evenings of each day being appointed for meetings at which were read papers on archæological matters.

The natives of the old principality still continue to teach us lessons, and show us examples worthy of attention. Celt and Cymry ought to work in harness on many points, and, however they may differ in detail, it must be remembered there is an intermixture of blood in the races, and blood, according to old proverb, we know is thicker than water.

CIVIC LYRICS.—No. XX.

"THAT RASCAL JACK."

Who sits in the chair beside the mayor;
In a suit of spotless black,
Nor turns his coat when he gives his vote?
"That rascal Jack."

Who talks of expense with a mere pretence
When a meeting he can pack,
And laughs in his sleeve at a make-believe?
"That rascal Jack."

Who drives the van for the working man,
Whom he strives to make a hack,
You'll surely guess if you read the press?
"That rascal Jack."

Who swells intent on a monument,
And spouts like a cataract,
Of fulsome foam o'er a honeycombe?
"That rascal Jack."

Who tries with his skill to lower Cork-hill
And give his foes the sack,
And fill up their posts with stalking ghosts?
"That rascal Jack."

Who staggers at last 'neath the public blast,
And tumbles upon his back,
The stricken-down tool of Civic rule?
"That rascal Jack."

EPITAPH.
Hush; here let him lie stretched neath the sky,
His tombstone in letters black
Records with grim chaff this epitaph—
"THAT RASCAL JACK."

CIVIS.

• AUTHOR'S NOTE.—Thin-skinned folk are cautioned before reading these rhymes not to try the cap upon their heads, or else it might fit them. There are so many "Jacks," single and compound in the field, we have not space at our disposal to enumerate them, but refer the curious reader to the latest edition of Walker, Johnston, or Webster, published, or otherwise to that very valuable volume called "Thom's Directory."

ANALECTA HIBERNICA.

The story of "Buck Whalley, i.e., Jerusalem Whalley, is pretty well known in this city, but whether he went and played ball against the walls of Jerusalem and returned to Dublin in the space of six months, upwards of eighty years ago, we will not vouch; Dublin, however, was famous in Irish Parliamentary days for more "Bucks" than one. Here is specimen in May, 1794:—"At Ranelagh, Alexander English, Esq., formerly known by the appellation of Buck English, a gentleman whose vicissitudes of fortune have been extremely eccentric. He languished for many years previous to his death in extreme poverty, and died at the crisis of a law suit terminating in his favour, by which an estate of nearly £2,000 per annum would have been restored to him."

Some few day previous occurred the death of a centenarian, which is worthy of note:—"At Waterford, at the very advanced age of 110 years, Mr. Samuel Clayton, formerly an eminent silversmith of the city of Dublin."

The following will interest, as a phase of Dublin life at the close of the last century. A grand ballet at Antrim House, Charlemont House, Lord Powerscourt's House, and other noble houses in Dublin, were ordinary occurrences in the last century. Private theatricals were then in vogue, and the members of the Irish Parliament often unbent themselves after their debates had concluded in College-green:—

"The Marchioness (1794) of Antrim gave a superb route ball and supper at her ladyship's house, Merrion-square, to a most brilliant and extremely numerous assemblage of first rank and fashion. His Excellency the Lord Lieutenant and most of the nobility were present. The grand Scot's ballet, which has been of so much expectation in the circles of fashion, was on this occasion performed by the following ladies, with the universal applause of the whole assembly—Countess of Antrim, Lady Leitrim Macdonald, Lady Isabella Beresford, Lady Anne Butler, Lady Augustus Forbes, Lady Theodosia Meade, both the hon. Misses Gardiner, both the Misses Montgomery, Lady Leitrim, both the hon. Misses Clements, Miss White, Miss Latouche, Miss Stewart, and Miss Ponsonby. The ladies who danced the ballet were in uniform dresses of white muslin trimmed with blue ribbands, with sashes and petticoats trimmed with silver fringe; head dresses, white turbans spangled with silver, and blue feathers.

"The music, which was all in the Scot's style, was compiled for the occasion. The ballet commenced with a strathspey in slow tune, and the figures of the dance varied with the tunes, which had a most admirable effect.

"The ballet on its commencement excited so much admiration as to draw the whole company crowding to the ball-room, which scarcely left the charming performers room to move. But, by the polite and persuasive interference of the noble marchioness, the room was tolerably well cleared, and the press of the company restrained by barriers of ribbands held by the noblemen. The curiosity of the company, however, was afterwards gratified by the the good-natured condescension of the charming dancers who, once more in the course of the night, encored the whole performance of the ballet.

"Dancing commenced at eleven o'clock, and at one the company were summoned to the supper-room, where elegance and plenty seemed to vie in the decoration of the festive board, while wit, beauty, and all the gaiety and splendour of fashion enlivened the enchanting scene.

"Dancing was resumed after supper, and the company separated with reluctance at six o'clock in the morning.

"This ballet, which has given the stamp of fashion to the *nouvelle* introduction of Scot's Strathspeys, was got up under the direction of the celebrated Mrs. Parker, whose elegant taste and finished dancing have justly attained so much *eclat* in the first circles in both kingdoms, and who has, in reality, proved an

invaluable acquisition to this country in that elegant accomplishment."

Reporters, whether they wrote shorthand or not, knew how to lavish their praise in the last century as well as at the present hour. The professional artist or actress, as may be seen from the above description, was not left out in the cold. Well, well, 'tis no matter now! The weavers, livery lace, and silk-workers living in the Coombe and Liberties had a trade in these days, and the tape and bobbin manufacturer had not as yet invaded the noble mansions of our city. *Sic transit gloria mundi.*

Henry Brooke, the author of "Gustavus Vasa," and father of Miss Charlotte Brooke, a lady to whom Ireland is somewhat indebted for her Irish translations, was a native of the county Cavan. He held at one time the post of barrack-master in Mullingar. He wrote a series of letters in the year 1745 (the year of Swift's death), entitled "The Farmers' Letters," in imitation of the "Drapiers' Letters," written by the witty Dean of St. Patrick's. "Gustavus Vasa" was first rehearsed at the Theatre Royal, Drury Lane, London; but, on account of some political passages, it was prohibited from being acted by the then Lord Chamberlain. It was published by subscription, and the author made about a thousand pounds by it. It was afterwards altered, and produced at one of the Dublin theatres under the title of "The Patriot." Henry Brooke wrote other plays which were acted in Dublin in 1741 and in 1758, under different titles. "Jack the Giant Killer" was the name of a satirical opera written by him, and performed in Dublin in 1745, but it was interdicted after the first night; it was then altered and reproduced on the Irish stage in 1754. Henry Brooke died in November, 1783. His works in 4 vols. 8vo., were published a few years before his death in 1778. His daughter Charlotte, we believe, wrote some sketches of her father's life before her own demise. She died about the year 1793-4.

From a description given in the *Anthologia Hibernica* of the Eustace Monument existing in the year 1786, in the ruins of New Abbey, near Kilkullen, County of Kildare, we are furnished with some interesting details. This remarkable monument was destroyed with the greater part of the ruins in order to build a Catholic chapel with the stones. A very good drawing of the original is given in the above-mentioned publication. The writer whom we suspect from his initial to be Beauford, says, "On the alto relievo are the effigies of Sir Roland Eustace, Baron of Portlester, and his Lady Margaret Jenico. Sir Roland, who was founder of New Abbey in the year of 1460, is clothed in armour according to the custom of the times. Lady Eustace is in the fashionable English dress of her age; on her head she wears a cap called a coronet, bound by a fillet or frontlet of gold and silver lace, wrought with the needle in no inelegant pattern. This fillet is tied behind, from which depend long lappets, or rather a kind of veil, which could occasionally be drawn over. On her bosom is a cross of pearls. Her gown is of that species called a kirtle, made to fit close, with robings, and, as pins were not then in use, made fast by a girdle studded with pearl roses. The skirts are plaited in large and thick folds, and trimmed at the bottom with a flannel. Her shoes are neat, and are in the present fashion.

Here observe (says the writer) that the kirtle was an English, not an Irish habit, nor did the original Irish ever wear it, though the English settlers did. The Irish ladies wore the gunna or gown, which was a long robe without sleeves as represented on O'Connor's monument (Sligo), and frequently closed by a girdle.

Round the figures on the outer edge of the tomb was engraved in relief, in that species

of Gothic characters called church text, the following inscription:—

Orate pro anima Rolando Fitz-Eustace de Portlester, qui hoc mo construxit et fundavit, et qui ob die Decemb. 19, A.D., 1496, etiam pro anima Margaretæ uxoris suæ.

The time of the decease of the lady is not expressed, as this part of the inscription is much defaced.

On the front of the sarcophagus are three figures in bas-relief; that in the middle represents a keener, clothed in the Irish habit; on her forehead she wears the cubbin or keveen, and on her neck and shoulders the shawl or cladhach; her petticoat is also flowered, but she has neither a boddice nor kirtle; over all, even her head, she wears the Irish fallang or mantle, called also the bratlin or Connaught cloak. The other figures represent two heralds, with crown, sword, tunic and cloak of their office; and also on their heads, under the crowns, the long veil or coif usually worn at funerals. There were some other figures on the opposite side, most of which were defaced, except that of a monk, in the habit of his Order, at the end. The sacrilegious hands which destroyed this monument were not content with removing the stones which composed it, but also scattered the bones of the founders in various places."

The family of Fitz-Eustace settled down early in Ireland, probably shortly after the arrival of the English. We have alluded to the vicissitudes of the family in our "Notes on Early Gardening in Ireland." As to the correctness of the description given of the monument, we must leave that question to be settled by others at present. The drawing is possibly quite correct, but the deductions drawn by the writer, are, we think, in some instances, highly problematical. Whether it be Beauford or not, we think the writer has fallen into errors which it would be well to correct at the present day.

The engraving in the *Anthologia Hibernica*, for 1794, will assist any of our Irish antiquarians who wish to review the subject in the light of later historic information, obtained and verified during the present century. DUBLINIENSIS.

TO CORRESPONDENTS.

SANITAS.—We have written several times upon the subject. Perhaps the new Sanitary Association will see their way to doing something.

"HOCK AND HAM."—A correspondent, assuming the *nom-de-plume* of a co-labourer of this paper, writes for information respecting the meaning of the above terms in masonry. We are not quite certain whether there is a bit of practical joking intended; and until we are assured that his "hock and ham" query has nothing to do with hamstringing, we must allow the writer to drink his hock and eat his ham elsewhere. We are very obliging when we know men are in earnest, and ask questions in their own name.

THE CORPORATION ADULT.—We have been obliged to defer our intended examination of these accounts till another day. We may be enabled, when we take it up again, to kill two birds with the one stone.

THE TOLKA RIVER.—The state of this river between Glasnevin Cemetery and Ballybough ought to be inquired into. Does the cemetery empty some of its drains into it? Are there no foul sewers flowing into it at Drumcondra or Richmond? and how many poor folk wash in it, and drink of its waters? Oh, Public Health Committee, inform us, for we are thirst for information about this classic Tolka!

BARRACK CONTRACTS.—The schedule prices of course don't pay! but wide awake persons can make them. *Quantity*, in good sooth, friend, is what is necessary, and not *quality*; and people are not so stupid as not to know that the greater the quantity of work, the more profit. There is a great difference between three square yards of plastering and three yards of calico. Twelve-foot boards, twenty-penny nails, and a-half a stone of glue—all is put in de bill, as the Frenchman says. All the above is a mystery to everybody except those who understand it. Those who do not, had better not trouble their heads about it.

OBSCURE BRIDGES.—Procure Watson Buck's volume; it will be found a useful and practical one.

ARCHITECTS.—Mr. H. Baker was, we believe, the name of the architect who succeeded James Gandon on some of the public works of this city, in the beginning of this century.

H. T., Waterford.—Your subscription has been two years in arrears, and hence the non-receipt of recent numbers by you. Send Post-Office order or stamps and your name shall be reinstated on subscribers' list.

W. B., Belfast.—We understand that he is practising in Chicago at present.

Perth.—We have received a Post-Office order for 7s. from Perth. The sender has not furnished us with his name, or for what the amount is intended.

HOME AND FOREIGN NOTES.

VANDAL ACTS.—An act of wanton mischief has been perpetrated at the new establishment of Mr. James Mooney, Lower Sackville-street. The upper torus of one of the Aberdeen granite piers on ground storey has been almost completely hacked off in the course of Friday night. A similar act of Vandalism was committed at the Hibernian Bank, College-green, where the capping of the pedestal, which is very much undercut, was treated in same manner. It is a pity that the scoundrels who delight in such mischievous acts are not apprehended and suitably punished.

ONE-RAIL RAILWAYS.—The importance of an extremely cheap system of railway, capable of providing outlying districts with better means of reaching the existing lines, and of facilitating transit in towns, has long been recognised by engineers, and it appears that such a system has now been devised. M. Larmenjat has just laid down at the Place du Roi de Rome, at the Trocadero, Paris, his one-rail railway, and *La Houille* announces that the official experiments on Thursday were highly satisfactory. The invention appears to be identical with that of Mr. Addis, an English engineer, practising in India, which was described a few years since. The locomotive weighs four tons, and has two wheels running bicycle-fashion on the rail, two other wheels in the usual position, and with caoutchouc tyres running on the roadway. The engineer can throw the weight on the rail wheels or road wheels at pleasure, the latter increasing the bite, and facilitating the ascent of an incline; there is 1 in 33 on the trial line. The rail weighs about seven kilos to the metre (15 lb. to the yard), and does not rise above the roadway. A speed of 8 to 11 miles an hour is attained, the motion is smooth and pleasant, and no difficulty is experienced in turning very sharp curves, the two loops at the ends of the line (which is about a quarter of a mile long) for permitting the train, consisting of the engine and three carriages, to change its position ready for the return journey, affording a very severe test.—*Mining Journal.*

ANTIQUARIAN WAIFS.—In taking down the kitchen of the Charter House, says the *City Press* of London, which dates back to the time of Sir W. Manny, the following articles among others were found in a disused sewer beneath the foundation of the chimney:—A Roman tumbler in copper, two fragments of Roman pottery, portions of flagons with handles, small head in alabaster, the features and head-dress, cap with turned-up brim and conical top, resembling those of King Thothes in the Egyptian gallery of the British Museum; two decorated spandres, so perfect that even the mark of the tool remains on the head of an animal, period fourteenth century, and a portion of moulding, the flutings filled in with colours. The architectural remains are supposed to have belonged to the monastery of St. John of Jerusalem. It is conjectured by some that the head formed part of a statuette which might have been brought to England by one of the Templars on his return from the East; but others doubt its Egyptian origin, and believe it to have come originally from India. The remains have been carefully preserved by Mr. Perry, the surveyor of the works.

A CURIOUS CEREMONY.—There was a singular scene at Lincoln on Monday, the occasion of opening a new arboretum. The members of the corporation, headed by the officers, bearing the mace and drawn swords, entered the principal gate of the park, and were there met by some fifty young ladies, attired as fairies. One of the young ladies, acting as spokeswoman, then read to the Mayor an address, as follows:—"We, ye Monks of ye Ancient Abbey and Lybertye of Lindum, do for ever hereafter coifide to your keeping and protection, One Ancient Common of Pasture, for all manner of cattle to be enjoyed by ye Free Citizens of our beloved Citye, who shall be proven by ye Mayor elect for ye time being of ye said citye, to be entitled to be enrolled." This having been read, the fairies, with their wands, protected the pass; the Mayor then demanded possession, which was refused by the fairies, and the Town Clerk then produced the Lincoln City Commons Act, 1870, and read a section from it showing the power of the Corporation to convert the common into an arboretum upon payment of an annuity of £200 a year to the freemen; after which the Mayor handed a print of the act to the Queen of the Fairies, who then broke her wand and handed half of it to the Mayor in token of possession (the ancient law bowing the modern enactment). The band of young ladies and the choir then sang a hymn, which was joined in by the public, and the Mayor formally declared the arboretum open. The Bishop of Lincoln then offered up a short prayer: the bands in attendance played the National Anthem, and the formal proceedings were brought to a close.

CORK SCHOOL OF DESIGN.—Two pupils of the Cork School of Design have been selected by the Science and Art Department for employment in copying the cartoons of Raphael. It is proposed to employ nine artists in this work. From the days of Barry to Hogan, Cork has produced, both in painting and sculpture, art pupils, not only a credit to Ireland, but a credit to Europe. Long may her School of Design flourish; nevertheless we would like to see it still in a more flourishing condition.

MEDIEVAL ARCHITECTURE.—Mr. E. W. Godwin, F.S.A., is erecting a picturesque half-timbered residence for the Earl Cowper, K.G., at Beauvale, Nottinghamshire.

ARCHITECTURAL COMPETITION.—If the Hotel de Ville of Paris does not rise speedily from its ruins (remarks *Galignani*), it will not be from a dearth of architects, as the number of those who have already inscribed their names to take part in the competition for the reconstruction of the building is 422.

REPUTED SCULPTURE BY RAPHAEL.—The *Nordische Presse* announces that there has lately been discovered at St. Petersburg the only work of sculpture by the hand of Raphael, consisting of a group in marble, representing a child reposing on a dolphin. Models in plaster and engravings of the group are well known, but the original, the existence of which at Paris about the year 1770 is incontestably proved, has disappeared since then, and it is not improbable, says the *Presse* that the group which has been found among other objects of art bought in the time of the Empress Catherine II. to adorn the Palace of the Taurida, is really the original by the chisel of Raphael.

A PAPAL PRESENT.—The priests attached to St. Peter's Roman Catholic Church, Hatton-wall, have just been presented, through one of the Papal household prelates, with a golden chalice, sent expressly by the Pope. This Catholic edifice is generally known by the name of the "Italian Church" in London, and is situated in a quarter which it is difficult to say whether the Irish or the Italian element predominates most. The surrounding district is the head-quarters of the Italian organ-grinders, and there is a fraternity of feeling between the musicians and the Milesians. The church is much resorted to by people of all creeds, on account of the name it has long obtained for good church music and singing.

"A VISIT TO EPPS'S COCOA MANUFACTORY.—Through the kindness of Messrs. Epps, I recently had an opportunity of seeing the many complicated and varied processes the Cacao bean passes through ere it is sold for public use, and, being both interested and highly pleased with what I saw during my visit to the manufactory, I thought a brief account of the Cacao, and the way it is manufactured by Messrs. Epps, to fit it for a wholesome and nutritious beverage, might be of interest to the readers of *Land and Water*."—See article in *Land and Water*, October 14.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING. —"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & Co., Homoeopathic Chemists, London." Also, makers of Epps's Cacaoine, a thin refreshing beverage for evening use.

MANUFACTURE OF COCOA, CACAOINE, AND CHOCOLATE.—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—See article in Part 19 of *Cassell's Household Guide*.

NEW METAL POCKET VESTA BOX, WITH PATENT SPRING COVER.—Bryant and May have recently introduced a very useful little Pocket Vesta Box with a most ingenious and simple spring cover; it is a novelty in every way, and will soon come into very general use, being of metal instead of card, and retailed, filed with vestas, at one penny. Any Tobacconist, Grocer, Chemist, or Chandler will supply it.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

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The Irish Builder.

VOL. XIV.—No. 306.

The Social Science Congress.

PLYMOUTH, Devonport, and Stonehouse share this year in the visits, proceedings, and sittings of the Social Science

Congress, the former town being the headquarters of the session, which is the eighteenth since the formation of the association. Plymouth is a little out of the way from London, being rather far south, and not so quickly reached as the midland towns, where some of the former annual gatherings took place. It would appear that Londoners and Dubliners, and of course Glaswegians, or the denizens of "Auld Reekie" prefer the northern

towns near to the Border than a run far south. However, Plymouth has its many historic associations and attractions, and we do not doubt, if the weather continues fair, the "outsiders" who patronise the congress and the town will be well satisfied with their visit. The session commenced on Wednesday, at eight o'clock, and Lord Napier, the president for the year, delivered the inaugural address. On the platform were the Mayor of Plymouth, Mr. Latimer, the Mayor of Devonport, Earl Fortescue, Sir Stafford Northcote, M.P.; Sir J. Bowring, Mr. Fowler, Mr. Kennaway M.P.; Rev. Brooke Lambert, M.A.; Rev. Treasurer Hawker, Mr. Hastings, president of the council; and Mr. Edwin Pears, the general secretary. Lord Napier delivered a very admirable address, touching upon questions of real property, the State as a land distributor, the law of primogeniture, and concluded with some admirable remarks on the subject of "rural cottages." We quote his opening remarks as well as his concluding ones in relation to the condition and housing of the agricultural labourer—a question which we have often ventilated in the pages of the IRISH BUILDER. Commencing his address, the president said—

The year which has gone by since the last meeting of this association may not be preeminently conspicuous in the annals of social science, but it will not pass undistinguished or unremembered. It has given birth to two enactments at least which are destined to have an honourable place upon our educational and sanitary roll—the Scotch Education Act and the Public Health Act. It has also witnessed the gradual development of the act for elementary instruction in England, a process on which the attention of the country is fixed with more than usual anxiety and emotion. When we consider that the act for elementary education was passed just two years ago, it is a matter for congratulation that more than one-third of the population of England has been already declared to be subject to the compulsory rule, that a number considerably greater had been brought under the government of school boards, though still without the obligatory bye-law; and that the educational condition of the remainder of the nation has been analysed, and sifted by the competent department which was prepared to carry into effect all its powers of encouragement and constraint. If the law of 1870 is to be set up as the standing target against which professional or factious agitation may

be exercised, how is it possible that the department of education, that the school board, that the great educational associations, will severally labour with confidence, with a sense of stability, with the conviction that they are laying the foundations of a better future. It is not too much to ask for an interval of undisturbed application to a sanctioned work, and for a judgment pronounced after and not before experience. We cannot build upon the quicksand of a fluctuating parliamentary majority. With the Education Acts for England and Scotland, and the Public Health Act before us, we cannot doubt that an impulse has been given to educational and sanitary work which must be progressive; and happily this progress will be conducted in the main with the concurrence and assistance of every party and class in the nation, however much parties and classes may still differ about forms and means. In both departments the ground is cleared and the basis of the edifice is laid.

No one can deny but that to the labours of the Social Science Association we owe the spread of education and the passing of laws and special enactments for preserving the public health. It has done much by the labours of its members, some of whom are members of Parliament; others, who are professional men, who have for upwards of a quarter of a century laboured not only as professional architects and engineers, but as hard-working journalists and sanitary reformers publicly and privately.

The following is the conclusion of the president's address, and the greater portion, if not all, deserves deep consideration. We commend Lord Napier's words to the careful attention of the landed proprietary of this country. We may and do differ from him in some of his remarks, but the spirit of all is good. Each locality must be guided by its surrounding circumstances, its population, and the localities existing or which can be created:—

RURAL COTTAGES.

The agricultural reports are decidedly adverse to the old-fashioned freehold cottage. Give the labourer a patch of soil for himself, or let him take it; he will raise a hovel, which will too often become a scene of overcrowding, dilapidation, slovenliness, and every sanitary abuse. Build the labourer a substantial and wholesome habitation on a garden and fixture allotment, and let him become the proprietor of the place by a course of industry and self-denial, there is a prospect that it will be kept with decency and pride. The man cannot make the house, the house will make the man. I have seen various projects and estimates to prove that cottage-building may become a good investment, but reason and experience convince me of the contrary, as far as the landlord is concerned. The rural population are not too few for their work. They are in some places too numerous. We do not want more men and additional cottages, but better men and better cottages. The proprietor cannot gain by multiplying the dwellings of the poor, except at the cost of another proprietor; and at the best the rent will scarcely do more than cover the repairs. As a rule, the landlord can only create good dwellings as substitutes for bad ones; nor can he charge a higher rent for a good dwelling than he does for a bad one. A new house will usually be found more expensive than an old one. It requires more fire and more furniture. The rents now paid should in many cases be reduced, if the labourer is to be settled in a more spacious and better-divided dwelling, and if he is at the same time to withdraw his children from field labour and pay for their elementary education. Indirectly, I concede that the landlord may obtain some compensation for his outlay. The reconstruction of cottages, when pursued on a comprehensive plan, will be accompanied by redistribution. The habitation of a labourer will be placed advantageously; he will be fixed nearer his work; the labour supply will be rendered more convenient and more regular; the hours of labour may be better assorted; and the strength of the labourer will be economised for remunerative exertion. The general improvement which may thus be effected in the working capacity of a farm may give it some increased value in the market. On the whole, however, the reconstruction of cottages by the landlord, with a due regard to moral and sanitary requirements, will be a work of love and pride, not a work of profit. Rural cottages fall into two groups—those which are associated with the current cultivation of the farm, and are destined to be habitations of farm servants; and those which

are intended to be the dwellings of unattached working men employed on roads, public works, agricultural improvements, or in handicrafts and trades. The first class must be built by the landlord, and must remain his property; the second class need not necessarily be built by the landlord, and might, in my humble judgment, even when the landlord undertakes the first outlay, be subsequently converted into labourers' freeholds with manifest advantage. In the reports recently submitted to Parliament on the operation of building societies, I do not find to what extent they have spread to purely rural districts. I conceive, however, that it would be much in the interest of proprietors of land to encourage the introduction of these agencies by becoming shareholders; by recommending them to the labouring classes; and by providing them with freehold sites on beneficial terms, with careful provisions, however, as to the quality of the structures to be erected. The landlord would thus be eventually relieved of the obligation to keep up superannuated and unremunerative buildings; the labourer would pay his rent with the hope of becoming a proprietor; the right of suffrage would be exercised with more independence and reflection; the child would be attached to the parent by a prospect of succession, and a home and a fireside would be substituted for a bed in the workhouse at the end of the perspective. The intelligence and conscience of a country having been aroused in this question, I think that we possess powerful guarantees for the reform of those social evils which are connected with the habitations of the rural poor, and even for the creation hereafter, under better auspices, of an order of labouring men holding a share of real property; but as in all classes there are individuals who are not accessible to the instigations of honour and duty, it may be desirable to examine the question of State interference. The question is a delicate one, and I would rather refer it to your consideration than hazard opinions myself. Speaking, however, in a suggestive spirit, I consider that great results may be expected from inspections and reports; these should be frequent, particular, and personal. The official indication of individual neglects, which in the present state of the law would be invidious and cruel, would become, under other circumstances, legitimate, and it would be in most cases irresistible. The sanitary authorities of the rural districts should be invested with the most ample prerogatives for the regulation of the character of the habitations within their jurisdiction. They should have absolute power to declare any building unfit for human habitation on the report of the government inspector, and to order it to be closed or removed after reasonable warning. No new building should be erected until the site and the plan had been submitted to the sanitary authorities for a time, so that objections might be taken on public or private grounds. The sanitary authorities of the district might, on the report of the Government inspector, and with the sanction of the Board of Local Government, exercise a limited power of expropriation against proprietors of land where an invincible repugnance was discovered to rebuild rural habitations in sufficient numbers and in appropriate situations. In such cases the sanitary authorities might be empowered to contract loans for the construction of labourers' dwellings on the sites thus obtained, or to enter into contracts with building societies for the same purpose, laying, if necessary, especial rates upon the property in fault. The rights of property must always be subject to limitation and constraint, the degree and direction of which will be determined by public expediency; and land having the greatest share of common interest is most exposed to the exercise of State interference. The condition of the land cannot cease for one moment to effect the welfare and enjoyment of the whole people, for it contains all the first elements of salubrity, sustenance, and productive power; in the use of the lands we find our best recreations and remedies; in the view of the land, a cheap and universal pleasure. Morally, it is no more incumbent on the landowner to do good and to prevent evil than it is on the fundholder; but his duty is more apparent, his powers are larger, and his obligations are more easily enforced. Nor can it be said that these liabilities are without compensations, for if the omissions and the wrongs of which the landowner is guilty cannot be concealed, and must be corrected, his good works are conspicuous, popular, fruitful, and enduring. Gentlemen, if my predecessors in this chair have deemed it necessary or becoming to confess a sense of their incapacity for an office so conspicuous and difficult, how much more is it incumbent on me to make the same avowal! Trained in early life in the employments of diplomacy, which as then practised had little direct regard to the inquiries in which you are engaged, and called on in later years to administer a distant dependency, where the ancient condition and relations of men have scarcely been disturbed by the innovation of the social reformer, I feel my temerity in assuming a position of prominence in this assembly. But the invitation which I have obeyed was based upon the

impression that the Government in India over which I lately presided had been animated by the idea which it is your function to propagate and direct, that in the limits of their financial capacity they had done something to combat the indigenous forms of famine, disease, ignorance, and crime. It was a recognition of services to humanity which I did not think it would be grateful or becoming to decline. I must now ask you to complete the measure of your kindness by enlisting me hereafter as a fellow-worker, and by excusing my deficiencies as a president.

The president's address was well received throughout, and listened to with marked attention. Sir Stafford Northcote and Earl Fortescue, in moving and seconding a vote of thanks to Lord Napier for his excellent address, took leave to differ from some of the opinions of the president. The Mayor of Plymouth, in putting the vote of thanks, urged the desirableness of the discussion of the land question by persons in the position of Lords Napier and Fortescue, who understood how to treat the question in a dispassionate way. He considered that nothing could be more liberal than Lord Napier's treatment of the question.

Several papers were read on Thursday and the following days: on "The Condition of the Criminal Classes," "The Education of Children," "The Position of the Agricultural Labourer," and on the matter of trade jurisprudence, and the all-important topic of the public health.

We will return to some of these questions in our next, wishing, for the present, health to all the members of the association, and a satisfactory conclusion to this year's Social Science Congress.

CORPORATE INCAPACITY AND THE PUBLIC HEALTH.

ONE shame and scandal succeeds another in the Corporation of Dublin, fully proving that that body is becoming a perfect nuisance in this city, and a drag chain upon all progress in the way of local improvement and sanitary reform. When a late epidemic, smallpox, raged in this city (and we are not yet quite rid of it) the idea of a Convalescent Home was started, and, after much loss of time by idle discussion and wire-pulling on the part of some of the members, the establishment of a Convalescent Home was determined upon. Plans were advertised for, but before any conclusion could be arrived at, owing to a shameful system of cross purposes, the epidemic had nearly disappeared, but not without making a fearful havoc of human life in the meantime. In May last tenders were received for the new building, but since then nothing has been done.

The Public Health Committee of the Corporation met a few days ago, when an amendment was proposed by Alderman Ryan, M.D. :—

"That, while fully affirming the principle of establishing a Convalescent Hospital, we are of opinion that the object would be most effectually and desirably accomplished by contributing to each of the city hospitals affording accommodation such a sum, under the form of a capitation grant, or in such other manner as will provide for the care and maintenance of convalescents."

Note that this amendment was moved by a medical man! Eleven members voted for the amendment, and only four members for the original resolution, which was to the effect that the erection of the Convalescent Home should be proceeded with.

Respecting this matter Mr. Byrne, at the Corporation meeting held subsequently, said :

"Six or seven months ago, at the commencement of the smallpox epidemic, the committee provided two cabs for the conveyance of patients to smallpox

hospitals. The guardians of the North and South Dublin Workhouses also provided similar conveyances. Up to the 19th July last the Corporation cabs were maintained by the committee, but at that time the committee came to the conclusion of discontinuing the payment made by them for that purpose. With that proceeding, which took place during his absence, he could not concur. *It appeared to him that the Public Health Committee and the Corporation had failed to realise their duty to the sick poor under the sanitary acts.* The guardians of the unions were much earlier in the field in providing for the sick poor who were not paupers, but who became disabled, and to some extent destitute when sick. The law said that it was the primary duty of the Corporation to provide these conveyances. He regretted that the Public Health Committee had a few days ago recommended the House to *sell the site obtained for the establishment of a Convalescent Home.* He was not present when the recommendation was made, but he must do justice to the committee by stating that when he gave notice of a motion to rescind it they unanimously rescinded so unwise a resolution. He thought the Council should direct that the fee hitherto paid for the support of the cabs should be continued, and he proposed that the Council direct the committee to do so until further orders."

The above throws a pretty light upon the doings of a section of the Corporation worthies. Not only was the building delayed firstly, but the site of the Convalescent Home was proposed to be sold; and the cabs intended to convey the sick were dispensed with. Some few medical men and their friends were desirous that the funds intended for the support of a Convalescent Home should be secured for the benefit of certain practitioners and hospital authorities in certain special city hospitals. Now, while not denying that these hospitals are fairly conducted, we are adverse, at the same time, to jobbery of any kind. Why should an urgent and good design, for even a temporary house in time of peril, be frustrated by any alderman, town councillor, or doctor, to please his clientele?

What does our Public Health Committee exist for? If it performed its duty in connection with the Corporation, would there be any need of another Sanitary Association? We do not admire playing at soldiers, or playing at nuisances. Interviewing nuisances and aping the sanitarian is hateful and dishonest work. Amateur ladies and gentlemen in scented kid gloves, and smelling bottles wrapped up in lavender, and fortified by something stronger than eau-de-Cologne, have done the graceful with etiquette and immunity ere this, but their mid-day or afternoon visits to the poor have only been disheartening farces. We do not want dabbling amateurs in sanitary matters—we need real workers.

The sick poor of Dublin or the filth of Dublin will never be attended to while the Corporation is composed of the majority of its present members. It is morally impossible to think it. With jobbery and law expenses, extravagant outlay of the public funds, with voting increased salaries to old friends and new friends, and paying assistant officers to help idle assistant officials; with the paying of £2,000 to defend the action of "Cherry and Smalridge v. the Corporation," how can there be money to keep the city clean, or provide a Convalescent Home for those stricken down by illness arising through Corporate neglect and gross incapacity.

A NEW SYSTEM OF BUILDING IN CONCRETE.

WE have lately inspected a pair of two-storey cottages erected near Dublin on a new system of building in concrete, recently patented by Mr. Holmes, architect, of 10 William-street. The principle bids fair in some degree to solve the difficult problem of providing cheap dwellings for the labouring classes, and would be particularly suitable for erecting cottages in country parts, where building in the ordinary way is troublesome and expensive.

The new system—or, perhaps, more correctly speaking, an old one revived—is an adaptation or imitation of the ancient and picturesque method of building known as half-timbered construction—a modern material, viz., Portland cement concrete, being used to fill in the framing and form the surfaces of walls; and it is for the manner of combining or connecting the different materials that the patent has been obtained. The advantages claimed are, that cheap and substantial houses can be erected with the minimum quantity of material and labour—very little skilled labour being required. To gain these objects, the walls are made very thin—about one-third the thickness of brick or stone walls,—the bulk of material required is consequently reduced in the same proportion, together with the cost of transit and the labour of placing it *in situ*.

The external walls of the houses we have seen are but 6 in. thick, and the partitions only 3½ in., yet they are fully as stiff as brick walls of double the thickness, and appear to be perfectly weather-proof, dry, and resemble slabs of chiselled granite fixed with the framing. We are informed that the quantity of timber absolutely required is—uprights to form sides of doors and windows, the angles, the head of sills and opens, and plates for floors and roofs. Where an ornamental appearance is desired, these can be arranged in suitable patterns, to give an architectural effect in a constructional manner—a point very often lost sight of in many of our buildings. On account of the facilities for fixing ordinary boards to the framing for filling in the concrete, no expensive apparatus is required; and, the surfaces of walls being smooth, require only a thin coat of plaster inside or out—a further saving of material and labour being thus effected.

This method of construction might also be used for other buildings besides cottages, such as farm-houses, villas, school-houses, &c., or for parts of such buildings,—thus the lower storey might be built of brick or stone, and the upper made in the half-timbered construction, as has been done with good effect by Mr. R. W. Edis, F.S.A., architect, in some houses on a building estate at Bexley, Kent.

It has struck us that it would be a convenient method of building houses at some of our sea-side watering-places, which are only frequented in summer, as it has been proved that none of the ill effects of salt water in the gravel or sand appear when it is used with Portland cement. Exception may be taken to the timber appearing in the walls—that it will decay,—but we see no reason why it should not last as long as it has done in the ancient houses still to be seen in many of the older towns both in the United Kingdom and on the Continent, and its contact with the Portland cement should be a preservative.

For agricultural labourers' cottages the system would appear to be well adapted, as the framework of such and all carpenters' work can be prepared at joinery works in towns, and can be erected by almost any handy-man, and the concrete filled by ordinary labourers.

The cottages above referred to have a frontage of 36 ft., and are 21 ft. deep. They each contain parlour, kitchen, and lock-up on ground-floor, and three bed-rooms each on upper floors. The flues are all carried up in one stack in centre wall, which is also built in concrete. The proportions used to form the concrete were eight parts of gravel and sand to one of cement; the latter is the manufacture of Messrs. Hilton and Anderson of London.

NOTES ON THE ECCLESIASTICAL
ARCHITECTURE OF IRELAND.BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A., SCOT.

NO. VI.—THE CATHEDRAL.

THE building dignified with this imposing title is one of very modest pretensions indeed, yet we have every reason to believe that it had been the cathedral church when Clonmacnoise was a diocese, and that it, or a former church on the same site, is that mentioned in the annals as the Daimhliag-Mor.

Our first notice of this church appears in the *Annals of the Four Masters*, at A.D. 904, as follows:—"The Daimhliag of Cluain-Mic-Nois was erected by the king Flann Sinna, and by Colman Conailleach." We find the same entry in the *Chronicon Scotorum*, under A.D. 908:—"The Daimhliag of Cluain-Muc-Nois was built by Flann, son of Maelsechlainn, and Colman Conaillech." Dr. Petrie has mis-stated both the above dates; he gives them as under the year A.D. 909, from the respective annals. Dr. O'Donovan, in a note to the former entry, writes as follows:—"Daimhliag: i.e., the great stone church, or Cathedral of Clonmacnois. The erection of this church is noticed in the *Annals of Clonmacnois*, under the year 901, as follows:—"A.D. 901" (*recte*, 908).—"King Flann and Colman Conellagh this year founded the church in Clonvicknoise, called the Church of the Kings (*Teampoll-na-riog*)." Again, in the record of the death of Colman, we find the same fact repeated:—"A.D. 924.—Colman, son of Ailill, Abbot of Cluain-Iraird and Cluain-Mic-Nois, a bishop and wise doctor, died. It was by him the Daimhliag of Cluain-Mic-Nois was built; he was of the tribe of the Connaille-Miurthimhne." (*Ann. Four Mast.*) This event is given in nearly the same words, at A.D. 925, in the *Chronicon Scotorum*.

Flann, son of Maelsechlainn, was one of the greatest monarchs who sat on the Irish throne; he had the unprecedented reign of thirty-eight years, and died—what few Irish monarchs died—a natural death. His obit is thus recorded in the *Four Masters*:—"A.D. 914.—After Flann, the son of Maelsechlainn, had been thirty-eight years in the sovereignty of Ireland, he died at Saltin. It was in lamentation of Flann the following verses were composed:—

"Flann, the fair of Freamhain, better than all children, monarch of Ireland, fierce his valour;
It was he that ruled our people, until placed beneath the earth's heavy surface.
Flowing flood of great wealth, pure carbuncle of beauteous form,
Fine-shaped hero who subdued all, chief of the men of Fail of august mien;
Pillar of dignity over every head, fair chief of valour, caster of the spears,
Sun-flash, noble, pleasant, head of the men of hospitality is Flann."

His life had been spent in continued warfare with the Danes, as well as with the refractory provincial chiefs, and in the latter part of his life his own sons turned against him, as we find it recorded in the above authority under the date A.D. 913:—"The harassing of Flann Sinna by his own sons, Donnchadh and Conchobhar, and Meath was plundered by them as far as Loch Ribh."

To this monarch, then, has been attributed the erection of the Daimhliag-Mor at Clonmacnoise, and I think that there can be no question that the notices quoted refer either to the present church, known as the Cathedral, or to one previously existing on the site, as the present structure has been so altered and repaired that it is doubtful if any part of the Daimhliag-Mor of A.D. 904 is in existence.

Dr. Petrie has laboured hard, and I think successfully, to prove that the church erected by King Flann and the Abbot Colman was the one now under consideration, and he cites the inscription on the great cross which stands opposite the western entrance as evidence thereof. I shall more particularly

allude to this when describing the cross. The next notice we have of this church is a curious one, as follows:—A.D. 1104.—"The shingles of one half the Damhliagh of Cluain-Mic-Nois were finished by Flathbertach Ua Loingsigh, it having been commenced by Cormac Mac Cuinn-na-m Bocht." (*Ann. Four Mast.*) Dr. O'Donovan has the following note to this passage:—"Shingles.—*Slinn* is used in the modern Irish to denote *slates*, but at this period it was applied to oak shingles." MacGeoghegan's translation of the *Annals of Clonmacnoise* has the following passage in reference to this transaction:—"A.D. 1100" (*recte*, 1104).—"The shingles of the great church of Clonvicknoise, and the lower end of the walls of the fine church, were repaired and finished by Flathvertagh O'Longsie, after the work was begun by Cormack Mac Connewoght, Cowarb of St. Keyran, though others call it Mac Dermott's Church." Finally, the *Chronicon Scotorum*, under the year 1109, has an entry which I believe refers to the same edifice, as follows:—"The Erdamh of Ciaran was covered both with shingles and benncobar." Despite of the difference of dates, I am of opinion that it records the repair or completion of a part of the same building mentioned in the preceding notices.

Dr. Petrie, in the fifth sub-section of his work, defines it to be a building attached laterally to another building, as a sacristy, and he quotes a definition from Cormac's *Glossary* as follows:—"Ardom, i.e., *urdom*, i.e., side house, or against a house externally." (*Round Towers*, p. 434.) Another passage quoted by the learned doctor from St. Adamnan's *De Situ Terræ Sanctæ*, &c., expresses the word *Erdamh* by the Latin *portico*, hence he reasons that it also designated a porch; this and some other illustrations from MSS. are of slender authority, and very obscure in their phraseology. From the prominence given to the class of buildings expressed by this word, they must have been of more importance than such subsidiary erections as porches or sacristies. I have never met but one ancient church that had any indications of a porch, and that is St. Saviour's Church at Glendalough; but this is of such small dimensions—about 5 ft. by 3½ ft., and placed in such an unusual position, at the east end of the nave,—that I don't believe it to be original. In only four instances have I seen any such adjunct as a sacristy to an early church—I allude to those of a date anterior to the eleventh century,—and those examples appeared comparatively modern, certainly not coeval with the original buildings.

From the notices found in our annals, the *Erdamh* must have been an erection of more consequence than either a porch or a sacristy, and a few of these notices I now produce:—"A.D. 825.—Burning of Magh-bile, with its Erdamhs, by Gentiles." (*Chronicon Scotorum*.) Here it would appear as if the word expressed churches, and all the ecclesiastical buildings of Magh-bile. Surely the annalist would not record the burning of a porch or sacristy, and make no mention of the important edifice, the church. Again:—"A.D. 1070.—The causeway from the cross of Bishop Etchen to Irdom-Chiaran was made at Cluain-Mic-Nois by Maelchiarain Mac Cuinn-na-mBocht; and the causeway from Cross-Chomhghaill to Uluidh-na-dTrig Cross" (i.e., the Penitential Station of the Three Crosses), "and from thence westward to the entrance of the street." (*Ann. Four Mast.*) Here the word certainly expresses a building of some importance, dedicated to, or named from, the patron saint or founder, and made a landmark of by the annalists. This Erdam of Ciaran is no doubt the building alluded to in the passage from the *Chron. Scot.* already quoted, the roofing and completing of which was an event thought to be worth recording. That the name was applied to distinct and independent structures we have evidence in the following passage, quoted by Dr. Petrie, from the *Annals of Ulster*:—"A.D. DCCCXCV.—Lightning caught Armagh so that it did not leave a *duirteach* or *daimh-*

liag or *erdam* or *fidhneamad* there without burning." (*Round Towers*, p. 435.) The same authority gives us another reference to this class of structure under the year A.D. 1005, as follows:—"The great Gospel of Colum-Cille was wickedly stolen, in the night, out of the Erdamh of the great stone-church of Cenannus. The great Gospel of Colum-Cille was found before the end of a quarter, after its gold and silver had been stolen off it, and sods over it."

Now it is quite evident that so prized and sacred an object as this copy of the gospels, written by the hand of St. Columba, and, as was the custom of those times, enclosed in a case mounted in gold and silver, elaborately embossed, and enriched with precious stones, could not have been deposited in a porch or sacristy for its safe keeping; it was doubtless placed in the sanctuary or chancel. The "great stone-church" above alluded to in all probability no longer exists. I scarcely think the allusion could be to the stone-roofed church at Kells, which I have already described, and which never had either porch or chancel; the reference is probably to a later one which existed upon the site of the present parish church.

Upon the whole, we must conclude that the Erdam was a structure of far more importance than either a porch or sacristy, as it is indeed doubtful if such were attached to our early churches. I am much inclined to determine that it designates the chancel or sanctuary—a structure which would fulfil the conditions of the definition given from Cormac's *Glossary*, "a side house or against a house externally," and at the same time be of such importance as to justify the references to it in the passages already quoted.

Finally, the *Registry of Clonmacnoise*, as quoted by Dr. Petrie, states that Tomultach Mac Dermott, chief of Moylurg, "hath repaired or built the great church upon his own costs, and this was for the cemetery of the Clanmaolruany": hence we find that this edifice is also named MacDermott's Church. His death is recorded by the Four Masters at A.D. 1336, who eulogise him as "the most victorious man of his tribe over his enemies, the most honourable man, the best protector, and the most expert at arms, and hospitable," and that he "was interred with honours in the Abbey of Boyle."

The cathedral in its present state consists of a simple nave 61 ft. long and 28 ft. 4 in. broad, clear of walls, which are all 3 ft. 3 in. thick. The east gable is down nearly to the ground level; much of the west one is down also, the flank walls standing about 20 ft. high. The material of the walling throughout is of limestone, the masonry course spawled-rubble, of inferior character. There are two buttresses or ante on the western quoins, each 2 ft. 11 in. wide, and 2 ft. 3 in. projection, also one at the east end; they are built of the same class of masonry as the walls. In the west gable are the jambs of a doorway, the arches of which are gone; it was 4 ft. wide in clear of inside jambs, and 6 ft. high to spring of arches; at each side was an external three-quarter pillar and four orders of piers having bases and carved capitals. Blaymire's drawing of this doorway in Harris's *Ware* shews a series of plain pointed arches surmounting the jambs. The plan of this door is from my own measurements; the drawing of the jamb-caps from a sketch by Dr. Petrie (*Round Towers*, p. 272). This doorway is not in the centre of the gable, but very close to the south quoin. In the north wall, and towards the west end, is a very rich and elaborate doorway of late perpendicular work; it is enclosed between two shallow buttresses, tabled and panelled on the front faces, and finishing with crocketed canopies, over which is a horizontal string, upon the chamfer of which are busts of four angels, and also an inscription, which Ledwich gives us as "Dons Odo Decanus Cluanm. Fierit Fecit," i.e., "Master Odo, Dean of Clonmacnoise, caused me to be made." Ledwich conjectures that this Dean Odo lived about 1280, and that the church was re-edified at that time; he, however, gives

no authority for the statement, and this doorway must be two centuries later. The jambs are very richly moulded, and two of its members are carved into a rope pattern; the hood-moulding which butts against the buttresses is crocketed. In the tympanum, between the hood-moulding and the string-course before mentioned, are three figures, carved in good relief; the centre is a bishop in pontificals, holding his crozier in the left hand, the right elevated in the act of benediction; the figures on either side appear in monastic dresses. Ledwich states that the centre figure is St. Patrick, the others St. Francis and St. Dominick; he had, however, no authority for this appropriation beyond his own conjecture. The material of this piece of work is a hard, dark limestone; it is finely wrought, and has an appearance of having been polished. The only window-ope remaining is a two-light pointed one in the south wall near east gable; it has an external label; under the sill are two square recesses, one of them a piscina with a fluted basin. There are no other windows remaining; a breach in the north gable probably contained one.

At the east end of the church is a curious arrangement: for a length of 19 ft. from the east gable there is evidence of groined vaulting, as there are two octagonal columns at the north wall, two at the south, and two at the east gable, and two angle columns; these have moulded caps and bases, and are bonded into the walling; portions of the springing ribs remain on the heads of the capitals. This space was probably the chancel; the groining must have been arranged in the manner set forth on the plan, and must have been supported by two pairs of columns, dividing the east end into a chancel with side aisles, probably used as chapels.

At the south side, and connected with the cathedral, is a building evidently used as a sacristy, and entered by a plain pointed doorway; its external dimensions are 22 ft. by 20 ft. 6 in., walls 2 ft. 9 in. thick. In the S. gable is a tall lancet, semicircular-headed, 6 ft. high, 6 in. wide; in the E. wall is one of the same form, 3 ft. 4 in. high by 7 in. wide. The ground floor of this building has a plain pointed vault, over which is an apartment with a fireplace, probably a muniment room, the chimney-shaft of which over the S. gable is well designed. All the loose inscribed stones collected from time to time in the cemetery have been placed here under lock and key, where they are accessible to all studious persons.

The history of the cathedral appears to be this: a church of some pretensions (in that age) was erected by the Abbot Colman under the auspices of King Flann, early in the tenth century. Of this structure I don't believe there is a stone remaining. In A.D. 985, 1020, and 1077, the buildings at Clonmacnoise were burned; plunderings and other devastations are recorded at 1044, 1046, 1065, and 1092; these will account for the total disappearance of the work of A.D. 904. We have then the notice of the roofing of half of the church in A.D. 1104, by the abbot O'Loingsy, which had been commenced by Cormac, the sire of Cuinn-na-mBocht. This notice evidently refers to a re-building of the cathedral which had been commenced by the latter personage about the close of the eleventh century. We have subsequently the roofing or completing of the "Erdamh of Ciaran" in A.D. 1109, which I have shewn to be the chancel of the Danhliah Mor, the nave of which had been completed in 1104, as already stated. These inferences I think may be fairly drawn from the statements in the annals. Of this building the only relic I could identify as of that period would be the western doorway of the nave. From the plan of the jambs and the design of the capitals, it is clearly of the latter end of the eleventh, or beginning of the twelfth century; indeed they nearly approach the transition period. Dr. Petrie is disposed to consider this doorway as a portion of the church of A.D. 904 (*Round Towers*, p. 272), but for the reasons stated above it cannot be so early. We have then the re-edifi-

cation of the cathedral by Tomultach Mac Dermott, chief of Moylurg, as already stated; indeed the passage from the *Registry of Clonmacnoise* states that he "hath repaired or built the great church of," &c. I believe the latter statement to be the true one; the masonry is of much inferior workmanship to that of Teampol Finghin, the Nun's Church, or even the western end of Teampol Doulin, and it is all the same character except a bit round the western doorway; this inferiority of the later masonry to that of earlier periods is very conspicuous here, as indeed it is all over Ireland. MacDermott certainly re-built this church, incorporating or inserting this doorway, and supplying a fourteenth-century arch in place of the original one, which was probably damaged by time or violence. It is also probable that the groining of the east end was of the same period. The north doorway, already described, is of late fifteenth-century work, and is evidently an insertion also.

I have thus been minute in describing this structure, more on account of the associations connected with it than of its architectural pretensions.

NO. VII.—TEMPLE EIGH.

This church stands S.E. of the cathedral; it measures 40 ft. 6 in. by 17 ft. 6 in., clear of walls, which are 2 ft. 9 in. thick on the flanks, and 3 ft. 3 in. on the gables; the walls appear to be nearly their original height, about 15 ft. The masonry is of coarse spawled rubble; the material limestone. In the south wall towards the west end is a plain pointed doorway, without chamfer or label. In the same wall, close to the E. gable, is a plain pointed lancet, 5 ft. 3 in. high and 6 in. wide externally, with large inward splays. The only other window-opes to be found in this building is the double light in the east gable; there are two semicircular-headed lancets 7½ in. wide externally, and 5 ft. 10 in. high, but splaying internally to a width of 5 ft. 5½ in. each. The opes are moulded on the external arrises, and have hood mouldings, which connect horizontally at the spring of arches. The internal jambs are also moulded on the arrises, which moulding is continued across the sills, under which is a double-chamfered string. A plan and internal elevation were given in No. 293. The dressings of this ope are of sandstone.

This church is named in Harris's *Ware* "Temple Ry or Melaghlín's Church"—I am not aware upon what authority. I have already quoted a passage from the *Annals of Clonmacnoise*, in which it is stated that King Flann and Colman Connelagh founded the church at Clonmacnoise called the Church of the Kings in A.D. 901. This evidently refers to the cathedral, which in this special passage is named as above, and therefore would here correct a former statement made at p. 63, where I referred the passage to the church under consideration. This edifice is evidently of a late date, excepting the east window, which is certainly a relic of an older church which had existed on this site, or else on the site of the cathedral; it has no other single feature of antiquity about it, and must be entirely a mediæval erection.

SCULPTURED CROSSES.

The monumental crosses of Ireland are justly regarded by her people with pride and veneration, as evidences not only of the religious fervour of those early times, but of the advance which the Gaedhil had made in the arts of design and sculpture. The best examples of this class, for symmetry of form, delicacy and variety of ornament, and cleanliness of execution, are not equalled by similar objects in any other country of Europe of the same date. The sculptured crosses of Ireland have, however, a higher value in the estimation of the antiquary and historian, being in fact enduring records in stone of the dress, arms, utensils, and peculiar customs of our countrymen, at an early period of the nation's history. From the many fragments strewn about the cemetery at Clonmacnoise, it is evident that a considerable number of these monuments must have existed there;

at present only two remain *in situ*, but these are well worth an examination.

NO. VIII.—SCULPTURED CROSS.

This venerable object stands opposite the western end of the cathedral. It has been described by Dr. Ledwich, in his *Antiquities of Ireland*, as an example of the mode in which these subjects were treated in his day. I here quote the learned doctor's description. He first notices the inscription on the perpendicular doorway at the north side of the cathedral, which I have already given, and then goes on to remark:—"This inscription refers to Dean Odo's re-edifying the church, and must have been about the year 1280, when the Dominicans and Franciscans were settled here and held in the highest esteem, as new orders of extraordinary holiness. The figures on this cross are commemorative of St. Kiaran and this laudable act of the dean. Its eastern side, like the others, is divided into compartments. Its centre, or head and arms, exhibit St. Kiaran at full length, being the patron of Clonmacnoise. In one hand he holds an hammer, and in the other a mallet, expressing his descent, his father being a carpenter. Near him are three men and a dog dancing, and in the arms are eight men more, and above the saint is a portrait of Dean Odo. The men are the artificers employed by Odo, who shew their joy for the honour done to their patron. On the shaft are two men, one stripping the other of his old garments, alluding to the new repairs. Under these are two soldiers, with their swords ready to defend the church and religion. Next are Adam and Eve and the tree of life, and beneath an imperfect Irish inscription. On the pedestal are equestrian and chariot sports. On the north side is a pauper carrying a child, indicating the christian virtue Charity. Below these a shepherd plays on his pipe, and under him is an ecclesiastic sitting on a chair, holding a teacher's ferula, upon the top of which is an owl, the symbol of Wisdom, and its end rests on a beast denoting Ignorance. The other sides are finely adorned with lozenge net-work, nebule mouldings, roses and flowers" (pp. 75, 6). I need not say that the above is entirely the effect of the writer's imagination. This cross, as we find by an inscription on its plinth, was carved early in the tenth century, while the inscription on the north door is late in the fifteenth.

This noble monument stands 13 ft. in height, and is 4 ft. 8 in. across the arms; it is formed of two stones, the plinth being one, and the shaft and arms the other. The former is divided into two horizontal panels on each side by a bead moulding, which also runs on the angles. These panels are filled on the eastern face by a procession of armed horsemen with chariots (which latter have a very eastern character), are supported on spoked wheels, each being drawn by two horses abreast, the driver standing, and holding the reins. East side.—There are three panels in this face of the shaft; the lower one has two figures, one an ecclesiastic or brehon; the other has long flowing hair with beard and moustache, a tunic that reaches to his knees, with a belt and sword, which latter has a broad blade, and a heavy knobbed pomel. Between the figures is a staff with a bunch of leaves, or a flower, on the head; both parties grasp the staff with both hands, alternately placed. It would appear as if they were swearing on the staff, an incident of very frequent occurrence, as we are informed in our early annals. This quaint piece of sculpture makes us acquainted with the actual form of that strange ceremonial. The staff, or Bachall, here represented is in all probability the pastoral staff or crozier of St. Ciaran, and which is thus alluded to in O'Donovan's *Ann. Four Mast.* A.D. 844:—"The plundering of the Termon of Ciaran, by Feidhlímidh, son of Crimthan; but Ciaran pursued him as he thought, and gave him a thrust of his crozier, and he received an internal wound, so that he was not well until his death." The same legend is given in MacGeoghegan's *Annals of Clonmac-*

noise, at A.D. 843. The most remarkable and highly venerated of these pastoral staves was that of Armagh, which was called the *Bachall Iosa*, or Staff of Jesus, and which is frequently referred to in the historic annals, particularly in those of the *Chronicon Scotorum*. Thus, at A.D. 1025, we are informed that "The Bachall Iosa was broken."

The *Bachall Iosa*, or Staff of Jesus, appears to have been originally the walking staff of St. Patrick; it was shod with iron, and had a spike in the end of it, evidently to take a firm hold of the ground in using it: thus we are informed that at the baptism of Aenghus, King of Munster, at Cashel, the saint placed his staff unconsciously on the sandalled foot of the monarch, which the spike pierced, drawing the blood. It was natural that all the belongings of our patron saint should have been preserved with great care and veneration, and that the companion of his many wanderings, and weary journeyings, the supporter of his age, and infirmities, should be particularly distinguished in this respect; hence the saint's staff came to be looked upon with great veneration, it being ultimately regarded as the badge of authority of his successors in the archiepiscopal Seat of Armagh: not only so, but it was supposed to possess miraculous powers of healing, was efficacious in the detection of theft, and became a talisman upon which oaths were sworn, solemn obligations made, the violator of such being supposed to bring down on himself the vengeance of heaven. The following notices will give an idea of the estimation in which it was held, and the uses to which it was applied. They are taken from the *Chronicon Scotorum*:—

"A.D. 1028.—The Bachall Iosa was profaned, regarding three horses, and the man who profaned it was killed before the end of three days." He was evidently a horse-stealer, who had sworn a denial of the theft on the *Bachall*.

The religious of Clonmacnois seem also to have possessed a Bachal-Isa:—

"A.D. 1028.—The community of Ciaran fasted at Tulach-Garbhá, against Aedh Ua Confiacá, dynast of Teathbha, and the Bearnan Ciarain was rung against him there, with the end of the Bachall-Isa; and the place moreover where he turned his back upon the clergy—in that place, his head was cut off before the end of a month, by the men of Midhe." This incident looks as if this class of bells was not furnished with clappers, as we know the early bells were not, being struck with a hammer. In this instance, to intensify the maledictions of the irate monks, the bell was sounded with the end of the sacred staff.

"A.D. 1116.—A hosting by Toirdhealbhach into Midhe, and he expelled Murchadh Ua Maeilsechlainn into the north, and its hostages were given to him under the protection of the comarb of St. Patrick, and the Bachall Isa."

Under A.D. 1143 of the *Annals of the Four Masters* we have the following curious passage, shewing the state of society then existing, and the nature of the pledges under which the highest powers in the nation were bound to the observance of their treaties:—"Murchadh Ua Maeleachlainn, King of Meath and its Fortuatha, was taken prisoner by Toirdhealbhach Ua Conchobhair, King of Connaught, while he was under the protection of the relics and guarantees of Ireland. These were they: the altar of Ciaran, with its relics; the shrine of Ciarain, called the Oreineach; the Matha-Mor; the abbot and the prior, and two out of every order in the Church; Muiredhach Ua Dubhthaigh, the archbishop, the lord of Connaught; the successor of Patrick, and the staff of Jesus; the successor of Fechin, and the bell of Fechin; and the Boban of Caeimhghin."

Such was the veneration attached to this relic, that the English authorities, though they derided the superstitions of the mere Irish, did not scruple to turn them to their own account; thus we find from a document preserved in the Chapter-house of Westminster Abbey, being "an examination of

one Sir Gerald Macshayne, knight, sworn 19th March, 1529, 'upon the Holie Maseboke, and the great relicke of Erlonde called *Baculum Christi*, in the presence of the Kynges Deputie, Chancellour, Tresoror, and Justice.'"—(*State Papers*, vol. ii., p. 146.)

In Dr. O'Curry's *Lectures on the MS. Materials of Ancient Irish History*, p. 601, will be found the translation of a legend from the *Tripartite Life of St. Patrick*, giving an account of the origin of the Bachall Iosa, and how it came into the hands of our saint; it is, however, so far-fetched and worthless, as to confer no credit on the subject. This interesting relic was brought from Armagh to Dublin, as stated in Sir James Ware's *Annals*, by William FitzAldhelm, and was deposited in the Cathedral Church of the Holy Trinity as a gift, in A.D. 1180, where it remained until the year 1538, when it shared the fate of other kindred relics, which were in that year destroyed by the Reformers.

We have evidence that the pastoral staves of other pious and distinguished ecclesiastics were regarded with almost equal veneration, and similar powers ascribed to them. The Rev. Dr. Reeves, quoting from Colgan, has the following passage:—"He adds that there was extant in his day, and preserved as a most sacred treasure, the staff, or pastoral wand, commonly called *Bachull-Mura*, i.e., 'Bachus Mura,' enclosed in a gilded case, and adorned with gems, by which many miracles were wrought, and through which, as the avenger of falsehood, and the unerring evidence of right, in cases where persons wished to remove all doubts from their declarations, or to terminate a controversy by the solemnity of an oath, the pious people, and chiefs, and especially the members of the O'Neill family, were wont to swear."—(*St. Mura*, by Dr. Reeves; *Ulster Jour. Arch.*, vol. i., p. 272.)

This *Bachall* is stated by Sir James Ware to have been in the possession of the O'Neills for several centuries; its present identity has not, I believe, been determined, as opinions have been divided between one in the collection of the late Mr. John Bell, of Dungannon, and one in that of the late Dr. Petrie. The Bachall of St. Comhgall was preserved at Bangor, until 1177, when it was forcibly taken away by the English; its fate has not been ascertained. The Bachall of St. Moehua of Mahu was also in great reputation: a legend narrated by Jocelin intimates that it fell from heaven; hence it was called "the flying staff."

The staves of remarkable female saints appear also to have shared in this veneration. St. Bronach, or Bromana, was venerated at Kilbroney, near Newry. There were certain lands, tithes, and dues which were appendent upon the "officiu baculi sancte Bromanæ in ecclesia S. Bromanæ," and were formed by the ecclesiastic who was appointed by the bishop, "custos baculi S. Bromanæ."—(Reeves; *Ecccl. Antiq. Down and Connor*, &c., p. 309.)

The next compartment has two figures facing the spectator; both have beards and moustache. One has his beard forked; the other has it platted, and hanging down to his breast. They appear to have long kilts, with cloaks over them, which are fastened by circular brooches. They wear swords depending from belts, and have no head coverings. The panel over the last has three figures, apparently ecclesiastics. The circular part exhibits the final judgment—Christ in the centre, holding in one hand a cross, in the other a double-headed eraser. The ends of the arms, and the head, are also filled with figures.

West face.—In the lower panel of the shaft we have the soldiers guarding the sepulchre; they are represented in a kneeling posture, with conical caps and spears, and afford us some idea of the equipment of the Gaedhelic warriors at the date of these crosses. The next panel contains a group of three persons, each with a nimbus, and may probably represent the Trinity. The upper panel has a centre figure with a nimbus, guarded on each

side by a figure armed with a spear, and probably represents our Saviour on his way to Calvary. In the centre of the circle the Crucifixion is represented. The sides of the cross are also richly decorated with a variety of chaste and intricate ornamentation. This is the *Cros na Sreaptra*, or Cross of the Scriptures, which is alluded to in the *Annals of Tighernach*, at A.D. 1060:—"The Elains and the Hy-Focarta plundered Clonmacnoise and carried away many captives from *Cros na Sreaptra*, and slew two persons there, i.e., a student and another youth." This incident shows us that this monument was in existence in A.D. 1060, but two lines of inscription in the Irish language and character give us some certain information as to its date; the first is on a tablet under the lowest panel on the west face of the shaft, and is given by Dr. Petrie as follows:—

"A Prayer for Flann, Son of Maelechlainn." The second inscription is on the eastern face of the shaft, on a similar tablet, as follows:—

"A Prayer for Colman, who made this Cross on the King Flann."

Dr. Petrie shows by historical evidence that the Cathedral of Clonmacnoise was erected by King Flann and Colman about A.D. 904, and that the monarch died in 916, the abbot in 924. We can, therefore, safely fix the date of this monument at early in the tenth century: certainly previous to 924. (See *Round Towers*, p. 270.)

NO. IX.—CROSS.

This monument stands opposite the west gable of Temple Doulin; it is 12 ft. in height and 3 ft. 9 in. across the arms. The plinth is unusually high, and is divided into three compartments by two horizontal bead mouldings, which also run on the angles. The shaft and arms have a double carved rope-moulding round their angles. On the west face, the lower panel of the plinth is divided into three compartments; the centre one formed of twenty circular bosses ranged in lines of four, the other two are filled with interlaced strap-work. The upper two compartments represent a hunting scene, much defaced. The shaft has three panels: one represents the Crucifixion, the others are filled with interlaced ornament; the centre and four arms have each a large carved boss. East face.—The ornamentation on this face is remarkably chaste and beautiful, the panels of the plinth are filled with intricate interlacements, as are also the panels of the shaft; one of the latter is of very exquisite design, the figures of birds, deer, &c., being involved in the folds of the ornamentation. Five richly-carved bosses occupy the centre and arms. The cap is of the usual roof shape, but much worn and defaced.

THE DANISH EXHIBITION OF INDUSTRY AND ART.

WITH a mixture of Danish blood in our veins, we ought to feel an interest in the progress of science, industries, and the arts, in Denmark. Our ancestors had a holy hatred to the Danes, well justified perhaps; but past feuds, pillages, and spoiliations concerning the Danish period of Ireland are now matters of ancient history, fitted only to point a political moral and adorn a pitiable tale. Let the past be past. Copenhagen has been doing of late years and recently what other cities have done and are doing, and her efforts are worthy of notice. We agree with a contemporary which says of the various departments in this "Northern Exhibition of Industry and Arts," there is none which commands such an amount of purely national interest as the department of domestic industry. It is not that the artistic arrangements here have reached a degree of excellence eclipsing the other departments; but in conception and design this department is peculiarly original, while in the background there are social interests of the most significant character. There can be no doubt that the culture of man has lost immensely one way by the introduction of machinery, just as it has gained immensely by it in others. But the greatest loss sus-

tained is perhaps the forfeiture of what may be called national sense of artistic design. Since the introduction of machinery, designs have entered a sort of cosmopolitan sphere, and the author must be a sort of artistic traveller who has seen much of man and man's ways in foreign lands, and assimilated or adopted the general tendency of the world's average taste. The conquest of the machine in every conceivable direction has been most complete where men are most thickly congregated. Where humanity is more sparse, leads a lonelier life, and is otherwise industriously inclined, it escapes comparatively the effects of the machine, and preserves its artistic tastes. The native industry of Norway bears such an intensely national stamp that nothing in the world could be mistaken for it. What is exhibited in the same class from Denmark bears an entirely different impress, and is so void of any specially-marked nationality that it might just as well be German. A few carvings of antique imitation may seem to form an exception, but they are not exactly national, and therefore tell no special tale of artistic tradition. There are no carvings from Denmark. There are a variety of designs executed by the saw; but none are specifically national—all belong to that general stamp of design which delights the modern world where domestic art is gone for ever. Many of these are very pretty, and executed in a charming fashion; but, to judge from this Exhibition, there is now no such thing as an indigenous type of Danish domestic art. Norwegian art, besides being quite indigenous, is so full of fertile notions that it seems to hear in it the germs of great decorative excellence. Every design is a finished or fully expressed idea, which is more than can be said of the high-priced designs of modern decoration among ourselves. Sometimes the design is one of an extremely complicated character, and one is struck with the way in which the workman manages to give every leaf its proper and most suitable position, size, and relief. It is not merely decorative art as manifested in carving that is noticeable among the domestic products of Norway. The various carpets, with all sorts of homely designs woven, knit, or crocheted in them, are of a highly meritorious nature; and the straw mats, baskets, ladies' small cabinets of wood, and many other results of the homely peasants' handicraft, make this collection about the most interesting in the Exhibition.

The perfect forms of beauty which the Norwegian producer has managed to give to his work has roused many of the Danes, and led to repeated appeals in the newspapers to the peasantry of this country to adopt the same, and endeavour to utilise in the cause of good taste and improvement time which is now wasted.

One branch of domestic industry is entirely new in Norway. A few years back there was no such thing known in that country as working in straw. But a long-headed native thought it might be attempted, and persuaded other people to join him in the project. A couple of ladies were sent to Saxony to learn the work in its various details; after their return they gave lessons up and down the country, and the result is that this industry is now becoming quite general throughout Norway. Through the instrumentality of a Norwegian female teacher at present resident in Copenhagen, it is extending to Denmark, and will doubtless become general here. Perhaps one result may be to revolutionise the trade as regards prices.

Very astonishing success is exhibited in the work from the Royal Institute for the Blind. Shoemaking, brush-making, and rope and basket making, are represented in a great variety of forms which it seems almost incredible that persons bereft of sight could ever have produced. The children's needlework is also abundant, and highly commendable. Similar praise is due to work from the Institution for Deaf and Dumb People, and even the Idiot Asylum has sent several highly-

finished pieces, which, neither in design nor execution bear any sign of mental derangement in the producer. One is struck, says the correspondent of the *Daily News*, with the utter absence of illustrations of agricultural domestic industry, and it is believed the promoters of the Exhibition regard this as speaking unfavourably of the native agriculturists' intelligence. It is also stated that the discontent at the distribution of the medals is very great, and no one can tell what will be the issue.

This aside, we trust that though the Danes "licked" our ancestors, and were subsequently well "licked" in return, that they will renew their industrial efforts, and if they beat us in the industrial race of nations 't will serve us right. The old sea rovers and the land robbers are settling down peacefully at last, and though they sacked and burned our grand old abbeys and cathedrals, we wish them God speed in their industrial towns and homesteads, which present many patterns of domestic industry and thrift worthy of imitation by their laggard conquerors.

CIVIC LYRICS.—No. XXI.

THE CITY TRIBUNE'S SONG.

The spouter's tongue, the hireling's pen,
Have duped nine folks in every ten;
And 'tis the Civic knave alone
Can reap the harvest not his own.
No more I'll muse, but boldly speak
Of Dublin's double-dealing clique!
A censor's life's the life for me—
A censor's lance, so Dublin's free!

No rogue would fear your silken talk,
Unless his schemes you meant to balk.
If tricksters yield, 'tis only when
They fear the thrust of earnest men.
'Tis useless, then, by day or night,
To bark at thieves, unless you bite,
A censor's life's the life for me—
A censor's lance, so Dublin's free!

A fearless pen, a burning tongue,
Can pierce, abuse, or probe a wrong.
What boots your pressgang minions, who
Will lick the dust, and eat it too?
Let's drag the scaly reptiles forth
That slime our city, south and north.
A censor's life's the life for me—
A censor's lance, so Dublin's free!

Then welcome howls from yelping curs—
Whole, three-quarters, or "half sirs";
All hail three columns of abuse,
In leaded type for special use.
He's only fit to breathe in fogs
Who would not slay all servile dogs.
A censor's life's the life for me—
A censor's lance, so Dublin's free!

'Tis only chronic strength and skill,
An iron nerve, a diamond drill,
Can cut a passage through the rock
That bars the mouth of Puddledock.
Another blow, another blast,
And Civic fraud will kick its last!
A censor's life's the life for me—
A censor's lance, so Dublin's free!

Then bare the root and wield the axe,
And fell this monstrous Civic tax.
Thro' flesh and blood, on, friends, nor blanch.
Down with the Upas, root and branch!
Give conspirators no reprieves;
Clear out at once the den of thieves!
A censor's life's the life for me—
A censor's lance, so Dublin's free!

CIVIS.

PLUNDERING THE PUBLIC—THE CORPORATION AUDIT.

We have already directed the attention of our readers and citizens to the precious Corporation Audit, and we solemnly declare that we do not know of late years such another instance of downright swindling. We cannot term the extravagant expenditure detailed in the report by any milder term. Let any impartial critic go over the accounts, and see if he does not come to the same opinion. The charges put down for the execution of

certain work is outrageously out of proportion with the value of the work *in globo*.

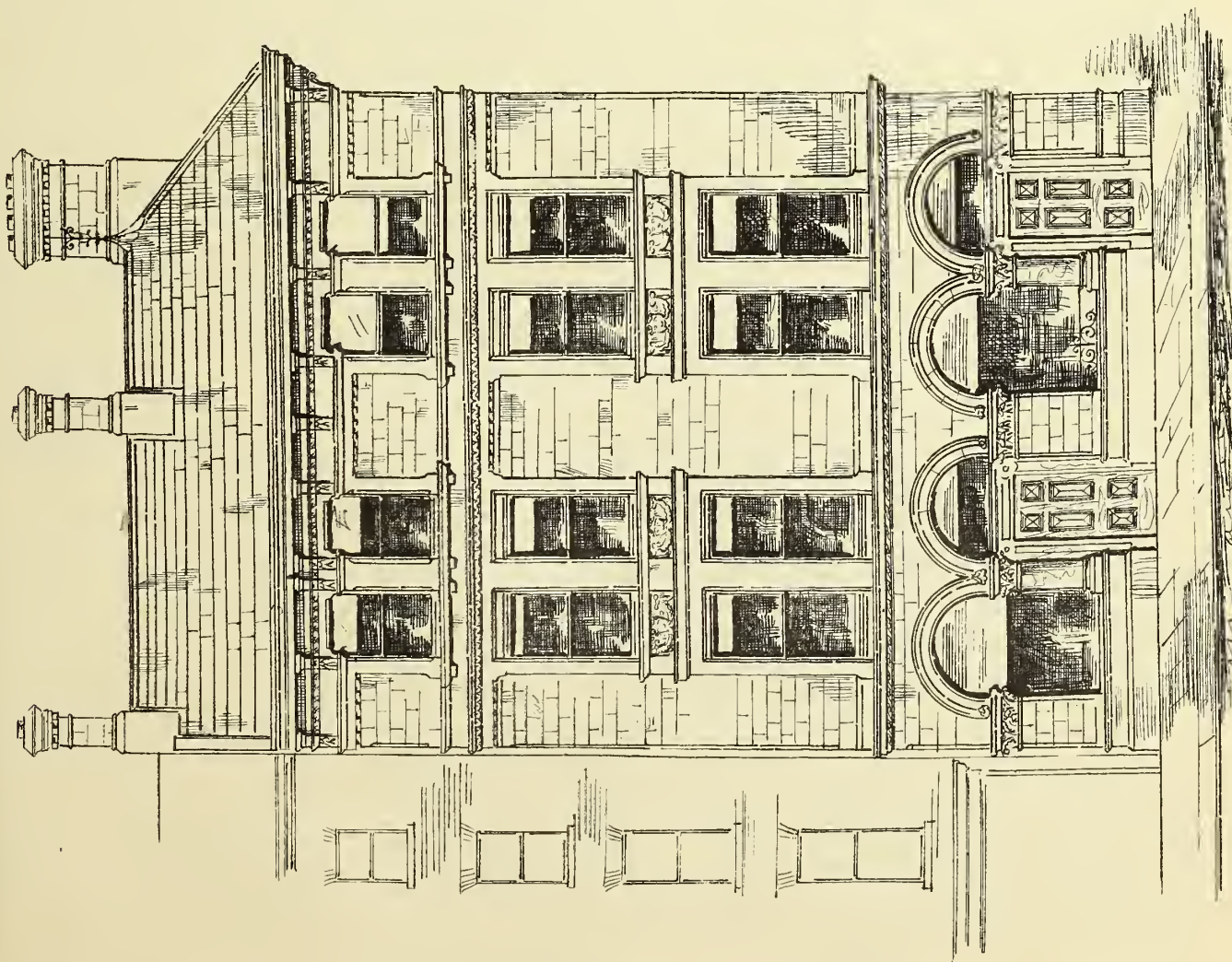
In the City Estate Expenditure for the year ending August, 1871, we have a total of £24,643 14s. 7d. put down. The outlay of these moneys, accounted for under the term of the Borough Fund, is comprised under various sub-headings—"Law and Parliamentary Expenses," "Salaries and Proportion of Salaries," "Mansion House Expenses," "Sanitary Department," "Incidental Expenses," "Miscellaneous," and various others. The above, however, are the most notorious. In the Incidental Expenses there is £50 paid to officers attending on the Lord Mayor in the presentment of an address at Windsor to the Queen. Who were the officers, and how was the money expended? Then there are several pounds paid for carriages for a deputation at the House of Commons. In all, there is the sum of £644 9s. under the head of "Incidentals," the half of which was unnecessary.

Next we have Law and Parliamentary Expenses in connection with the City Estates, put down separately at £120; and in connection with the Main Drainage there is another item of Law and Parliamentary Expenses, amounting to the tune of £1,170 odd. This last is the most shameful of the law business, and it includes payments made to the Town Clerk, Borough Engineer, Mr. Smyth (the Law Agent), and Mr. John Norwood.

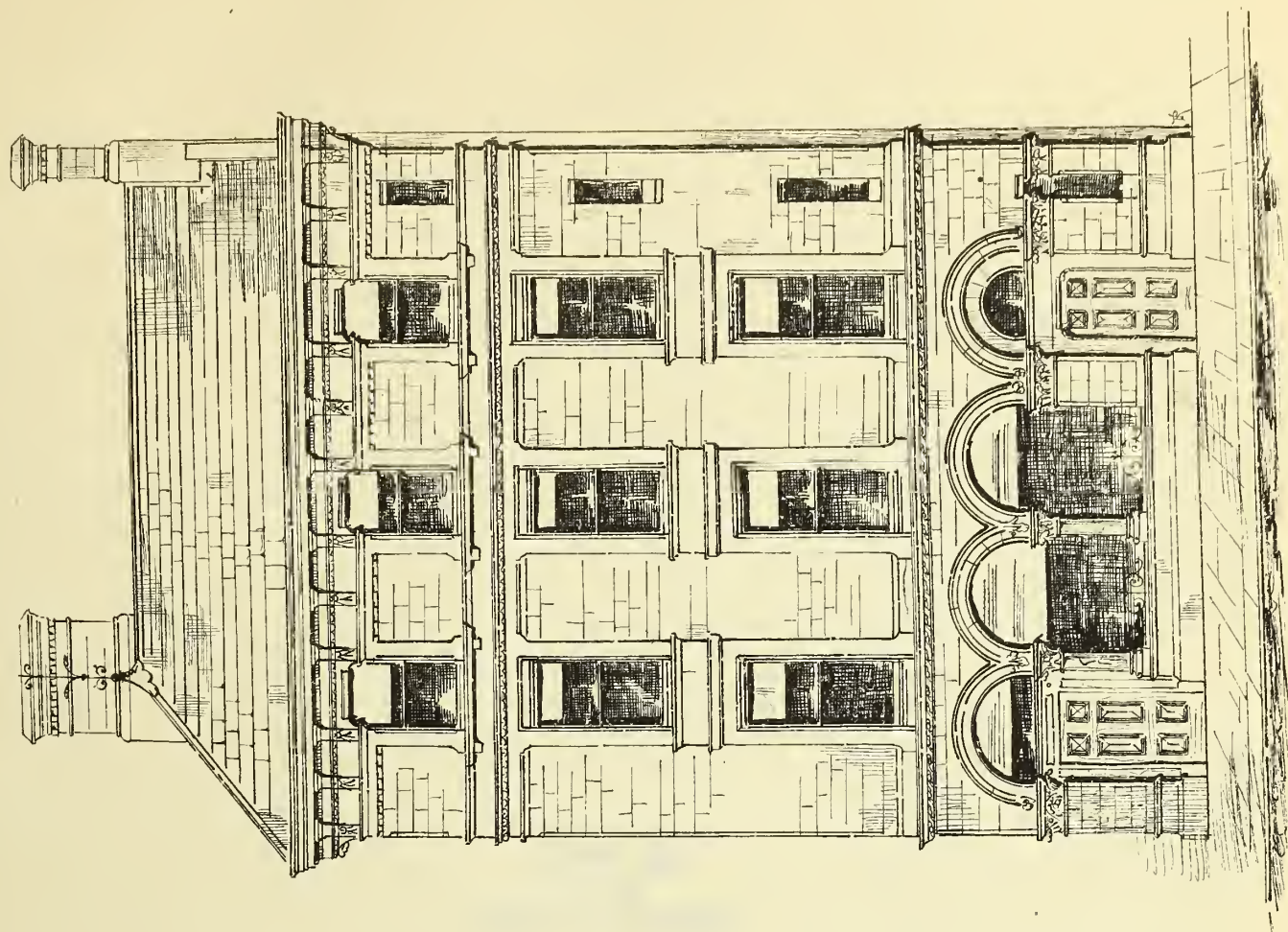
There is £887 19s. 4d. for botched and useless work executed at the Mansion House, which might be reduced by £300 or £250. Who taxes the bills? We wonder is it another friend of the Law Agent, or a purely disinterested party! The "Miscellaneous Items" include some curious charges for broken railings and broken legs, car-hire for lord mayors' funerals, *sundry* suspicious repairs, and pulling down and putting up pews in Marlborough-street Church. There is £310, which might be reduced.

The Sanitary Department presents another picture of Civic plunder and voracity. Between services and salaries, and payments made for work which might as well never have been performed, there is a round sum of £1,690 10s. 10d. "Car hire and petty expenses," and "extra services," are nice items—reaching little short of £100. The law expenses alone of the Sanitary Department as put down, comprised in a very short period, is £64 16s. The Main Drainage and Sanitary items are scandalous examples of the expenditure of public money, and if properly taxed they could be reduced by some hundreds of pounds.

In the "Dublin Corporation Water Works Fund," incident to the execution of the Vartry Water Works, we have a number of charges put down which ought to have been eliminated. The Borough Engineer and other officials as usual come in here for "sundries" and travelling expenses, which include, of course, sub-petty expenses which cannot be expressed in language or displayed in type. The best term, therefore, is "sundries." A "Hat Stand," at £3 18s., is indispensable to somebody; but what body obtained it, we would like to hear. Travelling through the country to the seat of the Vartry, or to London on ridiculous deputations, which ended in smoke, cost another good round sum curiously accounted for. Then we have loans to officers and loans recouped, loans contracted, loans renewed, stamps for bills, temporary loans, commissions, &c.—each and all swallowing up an expenditure in



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connection of several hundreds. The way these items are accounted for shows that a little learning is a dangerous thing, and that speech was given to auditors as well as others of the human species to conceal their thoughts and burke their details.

In the "Miscellaneous Accounts" connected with the building and establishment of the City Hall, we have a total of £1,455 6s. 9d. under the headings of Borough Fund, Water Rate, and Improvement Fund. Among the items there are some curious entries—"timber for various works (works not stated), nearly £150; letter-box, 15s.; and winding and repairing clock, £6." Some of the other items are on a par with these.

The "Salaries," "apportioned according to scale adopted by the Town Council."—The City Treasurer is put down at a total for all his services—not, of course, including "sundries"—at the modest sum of £925; the City Accountant, £350; the City Engineer, for services in connection with the dead and living business of the Borough Fund, the Water Works Fund, Improvement Fund, Grand Jury Fund, and Sewer Fund, £598 5s. 9d. This brilliant scale of remuneration adopted by the sapient Town Council does not, of course, include the special services of the Consulting Engineer, and his mysterious duties in other directions. The Law Agent, Mr. Morgan, gets £400 apportioned to him for a few of his duties, under the Corporate scale; and the Town Clerk, £500 and his perquisites, like the housekeeper, Biddy Mulligan. Mr. J. Martin, Assistant Town Clerk (poor devil), gets only £300 for the performance of a few of his duties. We have a suspicion that Mr. Martin does quite as much for his salary as Mr. Henry, and he is as well entitled to £500 as the latter. Who will vote him an increase of salary? If he has patience perhaps his senior will kick the bucket, and then—

We have waded quite far enough to-day through the Borough Balance Sheet. The figures smelt so foul that we had to give up the task until we could recruit our health, and disinfect the book by some process or other. It can only be perused by little and little, as a slight dose of the items and "sundries" is sufficient to stagger the strongest rate-paying citizen of Dublin. We are, however, not done with the volume yet, but shall return to it again, to point a moral and adorn a tale.

MEMORIES OF THE PAST.

THE ROYAL CIRCUS, ECCLES-STREET, DUBLIN.

ONE of those improvements so desirable in large cities, as affording breathing space amid crowded masses of brick and mortar, is now in course of construction at the upper end of Eccles-street. We mean the enclosure of the waste ground directly facing the Mater Misericordiae Hospital by a massive base stone of Ballynocken granite and ornamental iron railing, intended to be laid out in walks, and planted. The ground forms an unequal-sided triangle, averaging about 300 ft. on each of the three sides. It is bounded by Eccles-street, Upper Berkeley-street, and a new line of street from Eccles-street to Berkeley-street, which will be one of the approaches to the contemplated new chapel of ease of St. Michan's Roman Catholic Church. In a sanatory point of view, where such a number of small closely-built houses—more to be appreciated in their quantity than

their quality—have been erected, it is certainly of great importance to this locality, more particularly as affording a spacious foreground for the hospital and permitting an uninterrupted view of the façade of that building. The Sisters of Mercy, at whose solo cost this improvement will be carried out, deserve much credit for their laudable undertaking. The works are being executed under the direction of Mr. W. Hughes.

However much it may be desirable to provide accommodation in the northern districts of Dublin for families of limited income, yet houses with 9-inch exterior walls and 4-inch party walls, with bearing timbers of slenderest possible capacity, and built to sell, are scarcely to be recommended for this purpose; besides they painfully recal to mind the magnificent project at one time contemplated, partially carried into effect, but abandoned after a vast outlay, in this identical locality. At the commencement of the present century a space, 800 ft. by 370 ft.—forming an oblong oval radiating from a central line in the centre of what is now the upper end of Eccles-street, and about 80 ft. from its intersection with Upper Berkeley-street (as shewn on Campell's Map of Dublin, 1811),—was laid out by the then Lord Mountjoy, and called the Royal Circus. The foundation walls of the enclosing base were built, and it was intended to have been surrounded by first-class mansions, as a rival for, or rather to eclipse, Merrion-square. But this magnificent undertaking was never realized, partially, we believe, from some dispute with the authorities respecting the new lines of streets required, and partly from some defects in title to lands which became necessary to enclose within its area. Modern Dublin was therefore deprived of what would have been one of its greatest ornaments, moreover one which would have totally changed the current of fashionable residence, and absorbed it exclusively for the north side of the city. It is to be remembered that prior to this period numerous palatial residences were erected in the new streets and squares leading to the intended Royal Circus, the high and salubrious site of which now forms a marked contrast with the present low-lying fashionable quarters. Some fifteen years ago, during the excavation for the last house on the left-hand side at the upper end of Eccles-street, now occupied by Mr. Cuskar, a part of the foundations for the base stone intended for this enclosure was discovered, and another portion still exists in a stonecutter's yard in Upper Berkeley-street.

Some amount of interest is attached to this locality as having at one period been adjoining a royal demesne, and probably from this circumstance it is possible we are indebted to the title bestowed upon the intended circus. By letters patent bearing date 16th November, in the eighteenth year of the reign of his most gracious Majesty King Charles the Second (1666), there was granted to James Duke of York (afterwards James the Second), numerous lands, and amongst others 80 acres Irish plantation measure in the county of Dublin, which, according to a map and notes (placed in our hands by Dr. Willis, of Fortescue-terrace, Rathmines, who has so often kindly aided us in our topographical descriptions of ancient Dublin) stretched from Grangegorman to Dorset-street (then called Drumcondra-lane) thence on a line now drawn by Cavendish-row into the present Great Britain-street, designated upon the map the road to Clontarf, and extending east to a considerable distance on Summer-hill, then called Farmer's-hill. Another portion of these granted lands occupy what is now the upper end of Summer-hill, and the entire was designated in the grant as Ballybogh.

By the Revolution of 1688, James the Second forfeited all his estates both here and in England, and they were by an Act of the English Parliament (11th and 12th William III.) vested in trustees to be sold for the public benefit. By deed dated 12th May, 1703, these trustees sold to Alderman John Eccles, of Dublin, for the sum of £1,944 the lands of Ballybogh, the estate of the late King James, the extreme portion of which is that lying between Drumcondra-lane (now Dorset-street) and Grangegorman. But between the present Dorset-street and Grangegorman an intervening space is shewn upon the map above referred to, occurring at where the upper end of Eccles-street now is, about where Nelson-street intervenes, and marked the Earl of Drogheda's land; this once formed part of the large possessions of St. Mary's Abbey, a considerable portion of which had been granted by James the First to the earl's ancestor, Sir Garret Moore, Baron of Mellifont. Gardiner, the founder of the Mountjoy family (afterwards the Blessington family), purchased from the Earl of Drogheda such proportions as remained to him of the properties of this once wealthy community, and amongst the rest this, which was abutted upon at either side by the forfeited lands of King James, and here the Royal Circus was intended to be built.

The Mater Misericordiae Hospital, a time-enduring monument created by the self-sacrifice, zeal, and indomitable perseverance of the Sisters of Mercy, now stands very nearly central in the elongated eastern radius of the oval; and, however much we may regret the total collapse of a project which has deprived northern Dublin of being its most fashionable quarters, yet it is possible that the noble pile now reared upon this spot and consecrated to charity, confers—although in a vastly different manner, through the devoted ministrations of the sisters—far more substantial advantages in anticipating and providing for the wants of the humbly born when stricken down by the hand of God in sickness and privation, than if its site and surroundings were occupied by palaces and mansions intended only for those whom fortune loves to smile upon. We will trace it in a picture often photographed before us. Perhaps the scene lies in a garret, midst crowded thoroughfares and ceaseless din; perhaps in a cellar, where the summer sun seldom shines upon—the winter never; here upon a miserable pallet, still tidy and clean-looking, is stretched the emaciated form of the strong man of the stalwart arm wasting in sickness; his wife, with tearful eye which she vainly endeavours to conceal, is ministering to his wants as best she can according to their humble means, but these are now exhausted, and soon both lie together, surrounded by a family of young children gambolling in unconscious play, knowing not their wants, and almost in the presence of death. Perhaps it is a solitary wanderer, without one earthly tie; recollections of mother and of sister are of a far-off land, he has a faint idea that mother once pillowed his aching head in sickness, and wiped away the clammy perspiration from his forehead. Father, mother, and the wanderer are now lying in lofty wards under the one roof; kind friends are caring the children of the former, and gentle-born women, mothers and sisters to all, breathing kind words of hope, are smoothing the pillows of the sufferers. Need we say which has been of most advantage to Dublin—the intended mansions of the circus, or the hospital?

Much has been told and much more may still be written referring to the Royal Circus. It was before our time—we, therefore, can only speak of it from hearsay; but it has been whispered that curious revelations might be made with regard to the granting of leases for building purposes, not on the part of the noble proprietor, but through the agency of subordinates; and this, it is said (with what truth we know not), was one of the causes which contributed to the non-realisation of that project.

"THE QUERIST."

BY GEORGE BERKELEY, BISHOP OF CLOYNE.

(With Notes by "Dublinensis.")

"FIRST PUBLISHED A.D. MDCCXXXV."

WE continue in this issue the reproduction in regular order of the remarkable Queries of Bishop Berkeley. In each succeeding number we will give a like complement, until the series is completed:—

Whether, by how much the less particular folk think for themselves, the public be not so much more obliged to think for them?

Whether small gains be not the way to great profit? And if our tradesmen are beggars, whether they may not thank themselves for it?

Whether some way might not be found for making criminals useful in public works, instead of sending them either to America or to the other world [Australia]?

Whether we may not, as well as other nations, contrive employment for them? And whether servitude, chain, and hard labour for a term of years would not be more discouraging as well as a more adequate punishment for felons than even death itself? [Here was the germ of our modern home penal servitude system.]

Whether there are not such things in Holland as *bettering* houses for bringing young gentlemen to order? And whether such an institution would be needless among us?

Whether it be true that the poor in Holland have no resource but their own labour, yet there are no beggars in the streets?

Whether he whose luxury consumeth foreign products, and whose industry produceth nothing domestic to exchange for them, is not so far forth injurious to his country? [Truly.]

Whether necessity is not hearkened to before convenience, and convenience before luxury?

Whether to provide plentifully for the poor be not feeding the root, the substance whereof will shoot upwards into the branches, and cause the top to flourish?

Whether there be any instance of a state wherein the people, living neatly and plentifully, did not aspire to wealth?

Whether nastiness and beggary do not, on the contrary, extinguish all such ambition, making men listless, hopeless, and slothful?

Whether a country inhabited by people well fed, clothed, and lodged, would not become every day more populous? And whether a numerous stock of people in such circumstances would not constitute a flourishing nation? And how far the product of our own country may suffice for the compassing of this end? [Goldsmith, upwards of a quarter of a century later, embodies the same ideas in his "Deserted Village"—

"Ill fares the land to hastening ills a prey,
Where wealth accumulates and men decay.

But a bold peasantry, a country's pride,
If once destroyed, can never be supplied."

Whether a people who had provided themselves with necessities of life in good plenty would not soon extend their industry to new arts and new branches of commerce?

Whether those same manufactures which England imports from other countries may not be admitted into Ireland? And, if so, whether lace, carpets, tapestry—three considerable articles of English importation—might not find encouragement in Ireland? And whether an *Academy for Design* might not greatly conduce to perfecting those manufactures among us? [How long after these sentences were written by our great countryman were his pregnant suggestions acted upon? Verily, we were and are laggard in the march of nations.]

Whether France and Flanders could have drawn so much money from England [or Ireland] for figured silks, lace, and tapestry, if they had not academies for designing? [Certainly not.]

Whether, when a room was once prepared, and models in plaster of Paris, the annual expense of such an academy need stand the public in above £200 a-year? [Even at the

present time the expense would be comparatively small.]

Whether our linen manufacture would not find the benefit of the institution? And whether there be anything that makes us fall short of the Dutch in damasks, diapers and printed linens, but our ignorance in design? [The half-dozen preceding "Queries," and several of those succeeding, are worthy of careful thought even at the present hour. The value of schools of design for the development of the branches of manufactures and arts alluded to by the worthy bishop, has been incontestably proved of late years. Cork, Belfast, and Dublin, are beginning to feel the benefit of such schools; but we desire to see their usefulness extended a hundred-fold.]

Whether those, who may slight this affair as national, have sufficiently considered the extensive uses of the art of design and its influence in most trades and manufactures, wherever the forms of things are often more regarded than the materials?

Whether there be any art sooner learned than that of making carpets? And whether our women, with little time and pains, may not make more beautiful carpets than those imported from Turkey? And whether this branch of the woollen manufacture be not open to us?

Whether human industry can produce from such cheap materials, a manufacture of so great a value by any other art as by those of Sculpture and Painting?

Whether pictures and statues are not in fact so much treasure? And whether Rome and Florence would not be poor towns without them? [Yea, and several other towns and cities in Eastern and Western Europe.]

Whether they do not bring ready money as well as jewels? Whether in Italy debts are not paid with them as with gold and silver?

Whether it would not be more prudent to strike out and exert ourselves in permitted branches of trade, than to fold our hands and repine that we are not allowed the woollen?

[In the good bishop's days and for long years afterwards there were prohibitory enactments in force against certain branches of manufacture in this kingdom. Our native trade was often sorely crippled and even crushed by some of these cruel enactments which prevented us from exporting our manufactures. When these statutes were subsequently repealed, the commercial spirit of our people was unfitted for an effort for many years. During the short-lived existence of the Irish Parliament (eighteen years), however, great strides were made in native arts and industries.]

Whether it be true, that two millions are yearly expended by England for foreign laces and linen?

Whether immense sums are not drawn yearly into the northern countries for supplying the British Navy with hempen manufactures?

Whether there be anything more profitable than hemp? And whether there should not be great premiums for encouraging our hempen trade? What advantages may not Great Britain make of a country where land and labour are so cheap?

Whether Ireland alone might not raise hemp sufficient for the British Navy? And whether it would not be vain to expect this from the British Colonies in America, where hands are so scarce and labour so excessively dear?

Whether our own people want will or capacity for such an attempt, it might not be worth while for some undertaking spirit [speculators or companies] in England to make settlements, and raise hemp in the counties of Clare and Limerick, than which perhaps there is not fitter land in the world for that purpose? And whether both nations would not find their advantage therein?

Whether if all the idle hands in this kingdom were employed on hemp and flax, we might not find sufficient vent for these manufactures?

How far may it be in our own power to

better our affairs without interfering with our neighbours?

Whether the prohibition of our woollen trade ought not naturally to put us on other methods, which give no jealousy? [Would that it did, and Ireland would have presented a different picture to day.]

Whether paper be not a valuable article of commerce? And whether it be not true, that one single bookseller in London yearly expended four thousand pounds in that commodity? [In the work of Peter Lombard, Primate of Armagh, published at Louvain, 1632, some years after his death, the primate mentions that paper was but lately begun to be manufactured at the period at which he wrote—early perhaps in the seventeenth century. Dr. Lombard died in Rome in 1625, and was the son of a respectable Waterford merchant, being born in that city in 1560. He was appointed Archbishop of Armagh by Pope Paul V., and he was specially noticed by King James in his speech from the throne in 1614, as one of those who disturbed his government. See Lombard's work—*De Regno Hibernia Sanctorum Insula*, &c.]

How comes it to pass that the Venetians and Genoese, who wear much less linen and so much worse than we do, should yet make very good paper, and in great quantity, while we make very little? [And comparatively little still, notwithstanding this is an age of paper, lath and plaster, paper collars, cuffs, and Japanese curtains, and last, though not least, paper currency.]

How long it will be before my countrymen find out that it is well to spend a penny in order to get a groat? [Losing the sheep for the hap'orth of tar is more in accordance with the notions of some of our countrymen yet.]

If all the land were tilled that is fit for tillage, and all that sowed with hemp and flax that is fit for raising them, whether we should have much sheep-walk beyond what was sufficient to supply the necessities of the kingdom?

Whether other countries have not flourished without the woollen trade? [Yes, and were not in rags.]

Whether it be not a sure sign, or effect of a country's thriving, to see it well cultivated and full of inhabitants? And if so, a great quantity of sheep-walk be not ruinous to a country, rendering it waste and thinly inhabited? [Assuredly.]

Whether the employing of so much of our land under sheep be not in fact an *Irish* blunder? [Worse than a mere blunder; for had it only been one, the blunder could have easily been corrected a century ago. The good bishop was no republican, or communist, or socialist, in the modern acceptance of the term. He did not want to despoil the owners of their land, but he desired to see it cultivated for the commonwealth. The serious aspect of the food question will, in a few short years, force the land question under a new system. Thousands of acres, forests and shooting-grounds, will have to be given up by a statutory enactment, for the purpose of growing food for the people, or the alternatives will be something akin to famine or cannibalism.]

Whether our hankering after our woollen trade be not the true and only reason which hath created jealousy in England towards Ireland? And whether anything can hurt us more than such jealousy? [Politicians can answer this.]

Whether it be not the true interest of both nations to become one people? And whether either are sufficiently apprised of this?

Whether the upper part of this people are not truly English by blood, language, religion, manners, inclination, and interest? [To a great extent indeed.]

Whether we are not as much Englishmen as the children of old Romans born in Britain were still Romans? [This query suggests another at the present day, which will remain unanswered by us just now.]

Whether it is not our true interest not to interfere with them, and in every other case whether it be not their true interest to befriend us?

Whether a mint in Ireland might not be of great convenience to the kingdom; and whether it could be attended with any possible inconvenience to Great Britain? And whether there were not mints in Naples and Sicily when these kingdoms were provinces to Spain or the House of Austria?

Whether anything can be more ridiculous than for the north of Ireland to be jealous of a linen manufacture in the south? [The north of Ireland in these days has it nearly all to herself, but there is ample room in the south for more mills, machinery, and workmen, without any spirit of jealousy being entertained.]

Whether the county of Tipperary be not much better land than the county of Armagh, and yet whether the latter is not much better improved and inhabited than the former?

Whether every landlord in the kingdom doth not know the cause of this? And yet how few are the better for such their knowledge?

Whether large farms under few hands or small ones under many are likely to be made most of? And whether flax and tillage do not naturally multiply hands, and divide lands into small holdings and well-improved? [Small farms under many hands, when not too small, and when properly and scientifically cultivated.]

Whether, as our exports are lessened, we ought not to lessen our imports? And whether these will not be lessened as our demands, and these as our wants, and these our customs or fashions? Of how great consequence, therefore, are fashions to the public? [The nation that imports more than it exports to such an extent as Ireland, cannot be prosperous. Our live stock and few staple industries can never balance the enormous drain upon our resources. We are enriching others in consequence of our dire wants.]

Whether it would not be more reasonable to mend our state than to complain of it, and how and how far this may be in our own power?

What the nation gains by those who live in Ireland upon the produce of foreign countries? [Very little.]

How far the vanity of our ladies in dressing, and of our gentlemen in drinking, contributes to the general misery of the people? [The bankrupt court, the gilded brothel, the poor-house, the prison, the mad-house, and a thousand and one early graves each season will answer this query. With what prophetic wisdom had not George Berkeley interrogated his contemporaries and posterity!]

SANITARY MATTERS.

OUR city is still in a most unsanitary condition. Trifling prosecutions are taking place, but they only seem to create amusement to the parties concerned. The following case will afford an illustration of others somewhat similar. The Corporate officials, as usual, can see the mote in their neighbours' eyes, while they cannot see the beam in their own. The daily press reports that—

"Five or six persons were summoned by the sanitary officers for creating a nuisance injurious to public health by collecting a quantity of manure in the vicinity of the Coombe—one of the most squalid localities in the city. Mr. Ennis prosecuted. Police-sergeant 22 A deposed that the defendants kept manure yards at M'Clane's-lane, which adjoins the Coombe, and that the effluvia emitted was most offensive. Dr. Mapother testified that the existence of the nuisance was very injurious to public health, and that if cholera unfortunately visited Dublin this locality would probably be the first infected. The defendants, who appeared to be intelligent men, wanted to know why the Corporation of the city were allowed to collect manure heaps of a much more offensive and injurious description in and about the streets? Mr. Barton said that was a most pertinent question. Dr. Mapother admitted that there was unfortunately too much truth in the defendant's statement, but the Corporation yards were not situate in very populous districts. The defendants denied that the effluvia was injurious to health, and they called on Dr. Mapother to pro-

duce evidence in support of his statement. Dr. Mapother said the defendants themselves appeared to be in bad health: one of them, however, replied that he could eat all he got. Dr. Mapother said about two years ago he saw an old woman from the neighbourhood of the Coombe, whose face had become white as paper owing to the poisoned air of the place. One of the defendants said that woman was still alive and well, and was now nearly 90 years of age. Mr. Barton hoped that if the Corporation were in any way responsible, as he thought they very frequently were, they would be rigorously dealt with. The defendants were ordered to abate the nuisance within seven days, but they said they would not do so."

We trust that the magistrates will rigorously deal with the Corporate functionaries, who are guilty of the neglect stated by the defendants; but the defendants also must be made to conform to the law, and not be allowed to set it at defiance. It is a strange sight to see the sanitary officers of the Corporation prosecuting offenders against the public health on the one side, while the Public Health Committee of the Corporation and the Corporation in *globo* are utterly indifferent whether temporary hospital accommodation is provided or not. While a few inflated individuals are taking an excursion trip, and are troubled with "water on the brain," some hundreds of our citizens are stricken down with fever on the brain by the existence of tons of dirt unremoved by the reputed government that rules or directs, or is supposed to direct, the Public Health Committee.

With a polluted river, poison-impregnated homes, and a harbour which is becoming a normal cesspool, this city may well thunder its withering curse on the heads of that unprincipled body, who may well be charged in the annals of our time with being the murderers of our citizens!

THE COAL MINES OF IRELAND.

THE MIDLAND GREAT WESTERN RAILWAY.

At the fifty-fourth half-yearly meeting of the proprietors of the Midland Great Western Railway, a bold commercial policy was recommended. The report read shows an increase of traffic and profits, and, though materials and labour have risen in price, the company were enabled to pay 4 per cent., which, however, was not satisfactory to all the shareholders, who expected to get the same return as if the labour market had never fluctuated.

In the opening proceedings, Mr. Cusack, the chairman, said:—

"Their receipts increased in the half-year by a sum of £171,365 19s. 6d., which had been contributed to under almost every head. Their first, third, and fourth class passenger traffic was augmented considerably, but, like other companies, both in England, Ireland, and Scotland, their second class passengers diminished in number, resulting, he believed, from the fact of third-class carriages having been put to all their trains. The first-class passengers increased from 44,399 in June, 1871, to 46,045 in June, 1872. The third-class passengers increased very largely, from 266,597 to 307,872, while in the second-class passengers there was a diminution from 68,164 to 63,518. The entire receipts increased from £63,475 14s. 4d. in 1871 to £71,634 18s. 4d. in 1872. In goods traffic there was an increase of tonnage from 141,299 tons in 1871 to 157,294 tons in 1872, the receipts in money being an increase from £72,736 2s. 2d. to £81,940 5s. 2d. There was a considerable increase in horned cattle, from 59,074 in 1871 to 82,898 in 1872, whereas in sheep there was a diminution from 81,520 to 65,152. In pigs there was a slight diminution; but, with the exception of 1871, a larger number was carried than in previous years. On cattle the receipts showed an increase of £2,125. The entire receipts exhibited an increase of £17,355. The expenses had been greatly increased—principally in the two items of wages and coals. With regard to the present high price and dearth of coal, the chairman said he was sanguine in the expectation that relief would come to Ireland, and to that company, from the, as yet, very scantily developed Irish coal-fields. Within the last few days he and his friends around him had been visiting the coal and iron districts of Wicklow, and they had established the fact beyond any manner of

doubt that the coal there was adequate both for locomotive and household purposes. The specimens now exhibited in the board-room were fine specimens of the ordinary coal taken out of the Wicklow mine in their presence. Some gentlemen of position and property in England had made arrangements for at once commencing to work the coal and iron mine in that district. The principal coal mines in Leitrim are situated near Lough Allen. From Lough Allen there was a canal which would bring the coal so that it could be thrown from the boats into their waggons at Drumsna station. Mr. Readwin accompanied them on their visit the other day, and they were also accompanied by one of the most experienced coal-mining engineers in England. The entire visit had given him (the chairman) great pleasure, and strong hopes that before many weeks a bright prospect would be realised. They had felt it to be their duty to the shareholders and to the public generally to assist by every means in their power the carrying out of this project. They had undertaken to carry this coal and iron from either Carrick-on-Shannon or Drumsna at one half-penny a ton a mile."

The developing of the coal deposits of this country is a step in the right direction, and we trust that the company will not relax their efforts. Sending coals to Newcastle may not after all, in a few short years, be a very far astray speculation, and one, too, that may pay. Swift once wrote in bitter irony "Burn everything that comes from England except the coal." He considered that the burning of the latter commodity was a rather stupid affair, believing wisely that we had plenty of coal of our own that wanted burning, so that the industry of the nation might be increased by its rapid consumption.

At the meeting above referred to, a letter was read from Mr. Readwin, in which that gentleman said:—

"For several months past I have devoted all my thoughts to an inquiry into the capability of the Lough Allen district of the Connaught coal measures to contribute to the coal wants of Ireland. I am perfectly confident that several millions of tons of excellent coal can be easily obtained in that district at a comparatively small cost. The proximity of the coal area to Carrick-on-Shannon, or, better perhaps, to Drumsna, I consider at this critical coal juncture to be of immense advantage to your company, for coal can be brought in suitable crafts from Lough Allen to either of these points, both expeditiously and cheaply. Probably nearly one-half of your weekly requirements of coal will be wrought before the end of the present year, and before the end of the coming year it is more than probable that 150,000 or 200,000 tons of good coal and coke will require transit in the direction of Dublin, in addition to large quantities of calcined ironstone for forwarding to England. I believe the coal can be supplied to Dublin at a guinea a ton, and I think your line at Carrick or Drumsna can be always supplied with coal at a price considerably less than you can obtain it elsewhere."

The chairman informed the meeting that they had taken an extended lease from Col. Tennison, one of the principal proprietors of the district: and he believed, without being visionary or over sanguine, that the matter would turn out a great success. This is cheering news, and we hope, for the sake of the growing trades and manufactures of this country, that her coal mines will be at once worked with energy and spirit.

THE MEDICAL QUACKS OF DUBLIN AND LONDON.

NOTWITHSTANDING all we have written from time to time in condemnation of the villanous and indecent impostures of advertising quacks, two or three of our morning papers in this city still continue to publish these shameful announcements. We have not the least hesitation in saying that the proprietary of these journals and their editors have not a remnant of honour or morality left in their nature, if they are conscious of their criminal conduct in aiding this fell decency and imposture to live.

We tell them once more that the advertisements they are publishing from Dublin and London quacks are barefaced swindles, and that some of the scoundrels thus advertising have already been convicted before London police magistrates for robbery and worse

crimes. Harken to us, *Freeman's Journal*, *Irish Times*, and *Daily Express*; give up your obscene and swindling advertisements, and do not tread in the wake of *Reynolds's Newspaper*, and the *Irish Scavenger and Farmer*, who farms out his paper to systematic swindlers and vagabonds in the betting, money-lending, and the social cancer and ulcerated line.

Doctors, forsooth, with concocted diplomas from continental and American colleges! We have asked before, and we ask again, cannot the Irish College of Surgeons lend a hand in hunting down and prosecuting the rascal horde? Can the Public Health Committee or the new Sanitary Association do nothing? Can the detective department of Exchange-court not interview those diabolical schemers in their homes, and drag them before the divisional magistrates of the city?

The following startling exposure may wake up our somnolent city magnates and public. A reply to an advertisement having been sent, the following reply was received:—

"Dear Sir,—I shall be most happy to give you the benefit of my influence and assistance in obtaining for you a learned degree; as you, however, do not inform your profession or occupation, I cannot very well judge what degree is most suitable. The degree would be granted by the American (*sic*) University of Philadelphia, one of the leading colleges in the United States. I undertake all the formalities at my own risk and expense; you would obtain the degree *in absentia*, and without trouble or removing yourself. I could influence you one of the following degrees:—Ph.D.—Doctor of Physiology; Ph.D.—Doctor of Philosophy (*sic*); M.A.—Master of Arts; B.A.—Bachelor of Arts; Mus.D.—Doctor of Music; D.C.L.—Bachelor of Civil Law (*sic*); LL.D. (*sic*)—Doctor of Laws; Litt. Hum. D.—Litteræ Humaniores Doctor. Therefore you may elect what you like best, and let me know. The fees of the faculty, including the granting of the degree, the cost of diploma, the signing by the professors and passing collegial seal and registration dues, amount exactly to £20—beyond which nothing is to be paid. Waiting your reply at your earliest convenience, I remain, dear sir, yours, faithfully." This led to a letter of inquiry being sent to the University of Philadelphia, which produced the following reply:—"Dear Sir,—This University has not any representative in Great Britain, and no respectable college or university in this country would ever employ agents anywhere to recommend candidates for degrees, or receive fees under any pretext when those degrees are bestowed. The rules among decent people here on this subject are quite as strict as at Oxford or Cambridge; indeed, according to our statute law, any person signing a diploma which has been paid for is liable to fine and imprisonment, and, besides, the degree purporting to be conveyed is absolutely invalid. . . . If Englishmen wish to receive honorary degrees from colleges or universities in this country of the slightest reputation, you will perhaps permit me to say that they must pay no fees under any pretext for such honours, and above all must have nothing to do with people calling themselves agents for obtaining degrees. I shall be greatly obliged if you would give this note as wide a publicity as possible. —Yours respectively (signed), C. J. STILLE, Provost, University Penn."

What will Dr. Muldoon, of Skinner's-row, or the Molesworth-street handbill distributor say to this? What will Hammond, Jenner, Smith, Curtis, Jones, Watson, Hill, Barnes, and the other characteristic Brown, Jones, and Robinsons who hail from London, and advertise in our morning and weekly metropolitan and provincial papers?

We once more call upon the strong arm of the law to strangle for once and for evermore in this city this noisome nuisance. If the magistracy of our city, on being informed of the growing evil, will not move in the matter, they are unfitted for their position.

Let both the quacks and the newspaper publishers of swindling advertisements be struck down and heavily mulcted at the same time.

In our crusade against immorality and scoundrelism we will neither give nor take quarter, and will not desist our exposure until the vermin and their supporters are stamped completely out in this city.

CURRENT LITERATURE.

THE MAGAZINES.

Blackwood this month is a capital number all through. The usual political article, dealing with Cabinet questions, is absent. "Glimpses of the Future" is an agreeable story; and "The British Tourist in Norway," which is concluded, gives an interesting account of manners, customs, and other characteristics common to the northern nations. There is one article, however, which will possess more than a passing interest for Irish readers—a paper on the late Charles Lever, the Irish novelist. *Blackwood* was the latest medium through which the racy pen of Lever scintillated with all its early fire and genius. The contributions of our lamented townsman, under the cognomen of Cornelius O'Dowd, gave a character to the late volumes of *Blackwood*, and justice has been done to his memory in the Scotch magazine. There is an article also on Japan, which is worth perusal.

Temple Bar has some good papers of merit—"To Brighton and Back," "The Mother of Jacques," and "A Contemporary Portrait of Napoleon Bonaparte," are all good. "The Wooing O't," an opening novel, promises fair.

St. James's has two good serial tales—"The Cravens of Cravenscroft" and "Miss Dorothy's Charge." Sir John Bowring continues his "Nosegay of Translations." Sir George L'Estrange's "Scraps from Recollection" is interesting.

Belgravia is good in story and practical fields. G. A. Sala gives us more of his characteristic sketches of "Imaginary London;" his St. Pogram's Palace and St. Pogram's-street are, however, not altogether imaginary, save in name. Cockney readers will identify the places or snatches of their surroundings in the sketch given. "Three to One," Mr. W. Besant's "Tom D'Urfey," and "Cooke's American Novelists" are also good contributions, and very readable. The poetry, or rather the rhyme, in this month's number does not enhance its value.

The *Gentleman's Magazine* is a varied and excellent number. Mr. Alfred P. Graves gives two Irish songs of more than average merit. The editor's story, "Stranger than Fiction," increases in interest. "Our National Coal Cellar," is worthy of consideration by householders, housewives and husbands, who wish to save their fuel and curtail their expenses in that direction. "The Isles of the Amazons" is a spirited poem, full of power and alliteration, but alliteration carried a little far, we fear. "A Lady of Quality" "Old Loves and Old Letters" are very amusing. Nicaragua Walker tells an amusing adventure here, there, and everywhere, and ventilates some comical opinions. In relation to Dublin, we have the following rather amusing tale, designed perhaps to lick the tarnation cute Californian humorists:—

"When I lived in Dublin—it is now many years ago—I was seized with an illness. My doctor said I needed for a short time a hot and even temperature. 'Keep your shop at a high rate,' he said. If I had been a humourist, like Mr. J. L. Toole, I should have made a joke about the high rates which I already paid. I was not a professed humourist; I was only an egg merchant. I kept my place very warm according to the doctor's suggestion. One morning early I was aroused by a strange noise in the warehouse. I arose. The first grey streaks of the day were resting dim and shadowy upon the features of the wooden Scotchman at the tobacco-merchant's over the way. I listened. There were strange noises in the warehouse; whispering, tapping, scratching. 'Thieves!' I said. I crept back to my room. A blunderbuss is an old-fashioned instrument, and the shot it holds—well Twain's frog was a fool to it. I cautiously slid over the upper part of the warehouse door. I said 'Speak and surrender,' three times. There was no speaking and no surrendering. The thieves were going on packing all the time. I fired! A dead silence!! I listened. I flung open the door. Morning with her orient smile flung a ray of light into the warehouse at the same moment. What did I see? No thieves lying weltering in their gore, caught red handed at their crime. Three chickens hopping about opened their mouths at me as I entered. Two

hundred others lay dead upon the floor among a litter of eggshells. I had slain them. How came they there? The high rate of temperature had hatched two hundred eggs!"

Did Nicaragua Walker ever live in the neighborhood of Kilmainham, we wonder, or go to school in Stoneybatter? If he did, he could hatch us a few more stories like the above, and not mind rising the temperature of his egg store, or cracking the shells with his father's blunderbuss, which probably belonged to the redoubtable Town Major Sirr of old Dublin memory. Go ahead, Walker.

London Society is good in illustrations. "The Sea Breeze," and Mr. Guy Roslyn's "My Lady's Favourites," are well executed; "English Hotel Life," by Mr. Frederick Arnold, is pleasant reading. Art and Flirtation at South Kensington" will amuse the lady readers no doubt, for the art they study at the Exhibition is an old, old story that bears an endless repeating.

In *Tinsley* and the *Argosy* there are some good papers worth perusal, and *Cassell's Magazine* contains short and interesting papers. The technical manuals published by the same firm need a good deal of improvement to make them useful to practical working men. On another occasion we will, however, have a special say upon the subject of technical manuals designed for the use of artists and artisans.

THE PRESERVATION OF ANCIENT BUILDINGS.

Mr. Philip Brannon (an architect, we believe) in a letter to the *Standard* thus writes respecting the preservation of buildings from fire. His remarks are worthy of consideration, although there are many who will differ in their views as to the best method that can be employed as a lasting protection. Fashion, every other decade, is devising or introducing fresh preventives or so-called preventives, the majority of them turning out useless experiments, superseding older and safer durable ones. Mr. Brannon thinks—

To comprehend clearly the causes of these terrible disasters by which our finest buildings and most sacred historic monuments have again and again suffered, and by which, at the present moment—at any moment indeed—we are in danger of losing them for ever, it is necessary to recur to facts which, although commonplace, constitute the whole gist of the proposition—how by fire have we lost, and how from fire can we save, the sacred edifices and noble baronial halls and castles of Great Britain? The causes, then, of destruction exist not in the fact that the buildings are in great part of timber and combustible material. Paradoxical as it may seem, in ancient buildings, metal in the form of lead, and in modern ones in the form of iron, and in both occasionally brick and stone, are the proximate causes—the incendiary instrumentalities. In the present instance we have only to deal with the first named metal, which forms the almost universal covering of the ancient mansions of our nobility, as well as of our cathedral and abbatial churches. All fires in connection with these roofs, then, have had one of two origins—either flakes of burning soot or blazing brands from an adjoining conflagration, have fallen on a thin spot, or melted through the lead to the wood, or else, and most frequently, "the incendiary plumber," as a friend of ours calls him, has ignited the roof with his little fire for melting the lead or solder, and which he must have close by him to perform his work at all.

We thus have the whole question narrowed to this issue—that our castles, halls, and cathedrals are every hour in danger of ignition, and that all building doctors' prescriptions have as yet failed to offer the smallest remedy or even safeguard for this danger.

But there is a remedy absolutely certain and unfaulingly effective, and which has the advantage of being capable of application in any form that antiquarian propriety on the one hand may prescribe, or modern art and taste desire on the other. The recent invention for the formation of felted stone enables us to meet this hitherto insuperable difficulty in a manner as complete as former schemes have been futile. The concreted, earthy, or cementitious materials formed by this system into a fibrous artificial stone, can be produced as one unbroken sheet of any dimensions or in slabs of any size to be used separately or joined together, when placed in their permanent position. However thin

they are capable of any degree of resistance to fire, as was lately proved by public experiments, in which doors with panels half an inch thick survived the severe ordeal of 16 hours' fire. Two different modes of employing this material present themselves. The first is to form the roofs, whether flat as platforms, or inclined in ridges, hips, and the like, entirely of it, finishing the external surface in any system of detail, form, and colour desired. But the other, which will meet the wishes of ecclesiologists and antiquaries most fully, is to lay a sheeting of stone-felt over the present lay boarding of the leaden roof, and then to superimpose the lead on that. By this arrangement all the present beauty of our hall and cathedral roofs would be preserved, and so absolutely fireproof would they become, that at any point the plumber's fire could be overturned, or even a bonfire lighted upon them. It is enough to say that by this agency all fires from the causes first above mentioned would become absolutely impossible. There would be other material advantages, especially that of the more effective preservation of the timber and boarding from rot which is now induced by the condensation of moisture from the inferior surface of the lead, by the frequent leakage, and by the free access of vermin through the joints. So great would be the difference in these respects that it would add at least 300 years to the durability of the wood in these ancient roofs.

We agree in much of what the writer has stated, and if his methods are good for the purposes stated, they must be also equally good to use in various other parts connected with buildings where there is danger of conflagration arising from similar causes to those pointed out.

MR. J. G. MOONEY'S NEW PREMISES,
SACKVILLE-ST. AND ABBEY-ST.

OUR illustration this number represents the shops and dwelling-houses recently erected at the corner of Sackville-street and Lower Abbey-street, for Mr. J. G. Mooney. They are built with Dalkey granite and Portland stone, and on the ground storey Aberdeen granite shafts are used. The shops are elaborately decorated, and are fitted up with every modern convenience, and are provided with hydraulic and chain lifts, &c., necessary for carrying on the respective businesses. The works were carried out by Messrs. Michael Meade and Son; the decorations by Mr. Mannix; and the fittings by Mr. Walsh. Mr. Thomas N. Deane, R.H.A., was the architect.

IRISH COAL.

COAL IN THE PHOENIX PARK.—For the one hundred and fifty thousandth time, some of our contemporaries are informing the public that under the sword of the Phoenix Park there is a vast deposit of coal. We have little doubt about it, but those who have been dinning it into our ears have not given us one fact about the matter, nor do they seem to know how or where to obtain it.

COAL FROM BALLYMONEY.—There is at present at Derry quay a quantity of coal, which has been raised near Ballymoney, and brought to this city. It is said it has been found a few feet from the surface, and that the seam of coal is about 4 ft. in depth from which it was taken. Several persons put the coal to the practical test of burning, and with very satisfactory results. There is good reason to believe that an experiment deeper will find most excellent fuel.

CARLINGFORD HARBOUR.

MR. Barton, engineer to the Carlingford Lough Commissioners, reports that the excavations on the bar had now attained a depth which entitled the commissioners to make an application to the Board of Trade for an additional grant of £20,000, which would make a total grant of £100,000. The excavation or cutting away of the bar was to go to such a depth as to give 21 ft. of water on the bar at low water of spring tides. The cutting of the bar had, up to the present, proceeded in the most satisfactory manner, as

was proved by official examinations when the various instalments of the grant of £80,000 were applied for. Now, however, when a depth of 18 ft. had been attained, the dredger experienced great difficulty in tearing through the material. It would almost seem as if all the soft or friable material composing the bar had been cut through, and a basis of solid rock arrived at. The engineer was also of opinion that this apparently rocky bottom might be composed of huge boulder stones, such as have been frequently taken up by the dredger, formed into a compact mass by being embedded in the clay at the bottom. Divers were employed at the bottom in an endeavour to ascertain the real nature of the material cut down to, and rock blasting would have to be resorted to, which would considerably increase the expense and cause delay.

BOARD OF WORKS—
ARCHITECTURAL STAFF.

In the history of this country during peace, war, or even famine, the cost of living has never been higher than it is at present. Once very much below the sister country, prices have gradually become assimilated, and now Ireland has shared in the rapid advance in prices of nearly every article of household requirement, that embarrasses people of moderate means, and puts those on fixed incomes to their wits' ends to meet their tradesmen's bills.

The following table, showing the increase for thirty years, speaks for itself:—

	September, 1872		September, 1862		September, 1852		September, 1842	
	s.	d.	s.	d.	s.	d.	s.	d.
Bread per 4 lb. loaf	0	8	0	6	0	6	0	7
Butter per lb.	0	8	0	4	0	3	0	4
Eggs per doz.	0	10	0	6	0	7	0	5
Butter per doz.	0	10	0	11	0	8	0	14
Oatmeal per cwt.	14	6	13	6	8	6	10	17
Flour	15	0	13	6	6	10	0	17
Potatoes	4	0	4	0	4	1	1	9
Bacon	46	0	40	0	53	0	40	0
Coals per ton	25	0	9	6	10	0	6	16
Servants' wages per annum	£10 to £12		£8		£7		£6	

This great increase chiefly affects those who are dependent upon fixed incomes, and most of all those whose incomes were settled in times when the cost of living was comparatively low.

Producers, and those who are engaged in commerce, can increase the price upon the consumer, and thus recoup themselves; and now, when the system of strikes has almost become sanctioned by their success, the workman can raise his wages in proportion to the cost of living, and he is enabled to do so the more readily by the limited supply of the labour market, hence the labourer who a few years ago was glad to get 7s. per week, now grumbles at 14s., and there are cases where mere labourers obtain as much as 20s. per week. Tradesmen too—carpenters, masons, and other operatives in the building trade—have all succeeded in getting their wages considerably increased, so that in towns where they wrought a few years ago for 18s. and 20s. per week for long hours, they now get 30s. and 33s. for shorter hours.

But what becomes of those who cannot

alter their incomes, such as Government clerks and Government officials, particularly the staff we are most interested in? The increased cost of household requirements has justified claims for higher pay that has been acknowledged by the principal public companies, commercial houses, banks, &c., and their officials' salaries have been considerably augmented; and even in Government departments—as the War Office, Customs, Inland Revenue, Constabulary, County Surveyors, National Education, Post Office, &c.—the salaries have been increased; but the old-established Board of Works, and particularly its architectural staff, are obliged to subsist upon a scale of pay framed many years ago, when the cost of living was certainly one-third less than it is at present. Memorials praying for alterations have been forwarded from time to time, but there is no response yet; and surely, if we compare the architectural staff of the Irish Board of Works with any other section of the Government service, there are none more worthy of consideration, or have a stronger claim upon her Majesty's Treasury. The common and admitted ground upon which claims are made, increased cost of living has special force in their case, as their scale of pay was framed so long ago, since which even new departments have had their pay increased: for example, previous to the purchase of the telegraph system, the clerks were fairly remunerated by the companies; when transferred to the Government, their position was bettered and their pay increased, and since then they have applied for and obtained considerable advances, and yet the long-established Board of Works' officials are disregarded.

It is true the mere clerks under the Board of Works did receive an increase, but that improvement did not reach the architectural staff, whose special professional qualifications should entitle them to at least equal consideration; and surely the increased cost of living could not affect clerks confined at home to stated office hours so much as the architectural staff who travel all over the country, often in bad weather, and to remote places, constantly meeting new faces, creating liabilities, and paying demands charged at the highest figure.

The Board of Works' architectural staff has also a just claim for increased pay on the ground of increased duties, for, in addition to the natural increase in the work they had to perform twenty years ago, other work has been thrown upon them since, such as the building and care of Constabulary Barracks, Post Office and Telegraphic Departments, and the duties connected with the Glebe Loans Acts, the Church Act, the Labourers' Dwellings Act, &c.

On several good grounds, therefore, it is clear that the architectural staff of the Irish Board of Works is entitled to a generous increase of their pay and allowances, and it is to be hoped that the delay in properly acknowledging their just claims will be compensated for by the liberality of the increase when it is declared.

DUBLIN SANITARY ASSOCIATION.

A MEETING of the Working Committee of this newly-formed association was held at 26 St. Stephen's-green, on Thursday, the 12th inst.

LORD JAMES BUTLER, in the chair.

The following gentlemen were elected members of the Association:—Dr. Thomas More Madden; Dr. Evory Kennedy; Rev. A. T. Harvey; Rev. Morgan W. Jellet, LL.D.; Messrs. William E. Dean, Gilbert Cockburn, Paul Askin, Anthony O'Neill, T.C.

A letter was received from the secretary of the Public Health Committee, informing the committee of the steps being taken with regard to the various nuisances of which a list was furnished last week. In the course of this letter the secretary of the Public Health Committee directed the attention of the Sanitary Association to the following facts:—That there are in this city more than one thousand houses the condition of which is such that, in order to render them suitable for human habitation, the temporary removal of their occupants would be absolutely necessary. There are also many dwellings which should not be permitted to be used as

such, and still more are being erected utterly regardless of levels, or of the absence of the means of drainage. Dublin is unprovided with a Building Act, and therefore is deprived of the means of enforcing the fulfilment, by those erecting dwellings, of the primary conditions of sanitary improvement.

The sub-committee for the inspection of nuisances brought in their report of nuisances inspected by them during the past week in the neighbourhood of Townsend-street. The secretaries were directed to communicate the contents of this report to the Public Health Committee, calling their attention especially to the state of the premises No. 26 Shoe-lane which appears to be in very bad condition, particularly in regard to the deficiency of sanitary accommodation, there being but one privy-seat for a population between 50 to 60 persons of both sexes and all ages, the premises being besides very filthy and the house overcrowded. It is added that *the landlord is a member of the Corporation*. The sub-committee appointed to inspect the Corporation scavenging depôts brought in a report which was read and it was resolved,

That this committee, having heard the report of the sub-committee appointed to visit the Corporation scavenging depôts, is of opinion that the system at present pursued of accumulating the road scrapings and other refuse collected by the Corporation scavengers, within the city, is highly objectionable and the committee hope that the Corporation will shortly be enabled to discontinue the system, and to take measures for the removal of the present accumulation in North Brunswick-street, Marrowbone-lane, and Backpitts.

We give the above report, being anxious to help in every sanitary effort, however small, made in this city to improve its condition. If the action of the Public Health Committee and the Sanitary Association will result in a benefit to the public by their mutual labours, we will be glad indeed. Our columns shall at all times (as they have been since our first issue, thirteen years since) be open for the advocacy of sanitary measures for the improvement of our city.

An impression, however, exists, and more than an impression, for it has found vent in characteristic epithets that the Public Health body and the new Sanitary body are "do-nothings." Others again of our citizens have dubbed them "The Complimentary Committees." Well, we must acknowledge there is a great deal of truth in the terms, and there is no great harm in an exchange of civilities, if public duties and real work are performed at the same time.

We hope our new Sanitary body will work earnestly and talk less in a craving manner for small compliments. We can see there are useful men on the committee, who have already, through other channels, done valuable service. Let them come to the front, and relegate the Dundrearys to the Valhalla of ninnyhammers, humming birds, and cockatoos. Step forward, ye who can work; we desire preventatives instead of cures! Show us the system of your sanitary anatomy before you physic us to death with your advice!

CORRESPONDENCE.

ARCHITECTS' ASSISTANTS' REGISTRY.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Our attention has been directed to an article in your paper with reference to the Registry of the Architectural Association of Ireland, in which you recommend that it should be open to all looking for employment, on the payment of a small fee. It was with the intention of proving an advantage to the members of the Association, and as an additional inducement for the junior members of the profession to join it, that the idea of keeping such a registry was determined on by the committee of the Association, and we must decline to extend such registry to non-members. Our subscription is very small, but the paying of it shows some interest in architecture as a profession, and a desire to improve the standing of those connected with it, by means of intercourse and mutual improvement. By not joining the Association, assistants and pupils in

architects' offices neglect an opportunity that is now afforded them of meeting to discuss matters of interest and importance in their professional career.—Yours, &c.,

T. H. LONGFIELD, } Hon.
J. L. ROBINSON, } Secs.

[Be it so. *Sunt superis sua jura*.—ED. I. B.]

TENDERS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—After a lengthened absence, upon returning home to-day I was extremely vexed to hear from my chief assistant that, when furnishing a list of recent tenders (received in my offices) to the London papers, he had omitted to send you a copy of the same. Trusting that you will kindly pardon such remissness, I hasten to enclose the accompanying memorandum, which is a correct list of recent tendering.

W. JAMES WATSON, C.E.

Needham-place, Newry.

For the enlargement of hotel building at Rostrevor, County Down, for Mr. Sanxter. Mr. W. James Watson, C.E., architect:—

McQuirk	£510
Rantini	487
McShane and Lavery ..	480
Wheelan (accepted) ..	454

For a new Wesleyan manse at Newry, Co. Down. Mr. W. James Watson, C.E., architect:—

McShane and Lavery ..	£690
O'Hare	675
McQuirk	640
Wheelan	600
Rantini (accepted) ..	539

For carrying out alterations and erecting new offices at the Newry Salt Works, County Down, for Charles Lamprey, Esq. (exclusive of fittings). Mr. W. James Watson, C.E., architect:—

Wheelan (accepted) ..	£730
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For the enlargement of corn-store at Newry, County Down, for A. R. Walker, Esq. Mr. W. James Watson, C.E., architect:—

Wheelan	£530
O'Hare	475

For erecting a single-storey cottage at Rostrevor, County Down, for Edward Greer, Esq. (exclusive of ironmongery and fittings). Mr. W. James Watson, C.E., architect:—

Wheelan	£400
Rantini (accepted) ..	306

For alterations to a house at Portadown, County Armagh, for Richmond Pepper, Esq. Mr. W. James Watson, C.E., architect:—

Collen, Brothers (accepted) ..	£161
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For alterations to a house at Rostrevor, County Down, for Edward Greer, Esq. Mr. W. James Watson, C.E., architect:—

Rantini	£264
Wheelan (accepted) ..	234

For erecting new offices for the directors of the Newry Gas Consumers' Company, Newry, County Down (exclusive of ironmongery and fittings). Mr. W. Jas. Watson, C.E., architect:—

Wheelan	£372
Rantini	368
McShane and Lavery (accepted) ..	349

For the erection of four new houses, which are to form the first portion of a terrace, at Rostrevor, County Down (exclusive of ironmongery and fittings). Mr. W. Jas. Watson, C.E., architect:—

McShane and Lavery ..	£1,801 12s.
O'Hare	1,675 0
Rantini	1,578 0
Wheelan (accepted) ..	1,550 0

[The above is really a "tender" question, and is well advertised by this. Independent of the present example, Irish architects have much to learn, and engineers also, when they determine upon publishing their lists of tenders. We are ready to oblige them with space when they desire it, but they all, or

very nearly all, seem to be firm believers in the crooked Irish proverb, that "the longest way round is the shortest way home."—ED. I. B.]

TO CORRESPONDENTS.

SANITARY ENGINEERING.—Dublin is blest—but that is not the proper word—with the advice of a home and foreign consulting engineer who know how at least to consult and conserve their own interests. One of those able authorities has proposed a similar scheme for the disposal of the sewage of a populous town in the south of England, as that propounded by him for polluting the Liffey, a scheme, by the by, which has been acquiesced in by the quondam consulting engineer. The scheme is on a par with the wonderful invention of the "hopper barges," that most brilliant idea of pitching mud into the Liffey and bay and dredging it out again. Oh, Sisyphus, roll up the hill that eternal stone of yours, for it is sure to roll down again. So Love's labour will not be lost. Take dirt from dirt and dirt remains.

ARCHITECTS IN COUNCIL.—In the Town Council, perhaps, is what our correspondent means. Well, there are consulting architects, assistant architects, and expectant architects, but we fear the working drawings are prepared by the Corporation carpenter, a "three branch hand," and as Barney Sheehan says, "a mighty great janins entirely."

THE LONDON BUILDING STRIKE.—The strike is at an end as a general strike, but there are several partial disruptions and disagreements in different forms between the masters and the workmen, on the wages question as affected by the codes of working rules.

IRISH PROPERTY IN 1799.—If wine drinking can be taken as a proof of Irish prosperity before the Union, the consumption of that article affords us a proof that our resident nobility and gentry resided a good portion of the year at home on their estates. It certainly was not the middle or the working classes who drank the large quantities of wines consumed. The import of wine in 1799 was 1,238,512 gallons, but it had decreased until in 1848 there was only 512,319 gallons. These last few years there is a slight increase.

INLAND NAVIGATION SURVEYS.—The old commissioners or directors-general of Inland Navigation as they were termed up to 1810, did but little except receiving their salaries and squandering a large portion of it in corrupt practices. A series of surveys were proposed by them in different parts of the country, some of which were completed. They afford some valuable and useful information. Taking into account the enormous amount they cost, they ought to be valuable; but, after the frightful expenditure of money squandered in their preparation, no practical measure resulted therefrom.

ALL HALLOWS COLLEGE.—This institution was founded about the year 1843, by a native of the County Meath, Rev. Mr. Hand. The old mansion on the ground was once inhabited by the Earl of Charleville, and by Major Beresford of '98 notoriety. Immediately before it was taken for the establishment of a missionary college, it was the residence of Sir Colin Campbell, the chief, at one time, of the Irish Constabulary force.

BELVIDERE HOUSE, DRUMCONDRA.—This old brick mansion—inhabited for many years by the family of Sir Coghill Coghill, descended originally from a Yorkshire family—was at one time the residence of Lord Lifford. There is a monument to the memory of Marmaduke Coghill in Drumcondra Church. Who the sculptor was we do not know at present, or whether it was executed in Dublin or abroad. Sir Marmaduke sat as a member of Parliament, and held other public offices.

"A VISIT TO EPPS'S COCOA MANUFACTORY."—Through the kindness of Messrs. Epps, I recently had an opportunity of seeing the many complicated and varied processes the Cacao bean passes through ere it is sold for public use, and, being both interested and highly pleased with what I saw during my visit to the manufactory, I thought a brief account of the Cacao, and the way it is manufactured by Messrs. Epps, to fit it for a wholesome and nutritious beverage, might be of interest to the readers of *Land and Water*.—See article in *Land and Water*, October 14.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cacao, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & CO., Homoeopathic Chemists, London." Also, makers of Epps's Cacaoine, a thin refreshing beverage for evening use.

MANUFACTURE OF COCOA, CACAOINE, AND CHOCOLATE.—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—See article in Part 19 of *Cassell's Household Guide*.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Post Office Orders and Cheques should be made payable to Mr. PETER ROE, 42, Mabbott-street, Dublin.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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The Irish Builder.

VOL. XIV.—No. 307.

The Census Commission of Ireland.

FIRST REPORT—CARLOW.



THE Census Commissioners have just issued the first of a series of County Reports, beginning with the province of Leinster, and commencing alphabetically with Carlow. When the general report for the whole of Ireland may be completed, we are not permitted to know; but possibly before the last half of the work is complete, the first half will be nearly valueless from the lapse of time and the changes that occur in the population and other matters in the meantime.

In Carlow, it appears from this instalment of a general report, that out of the 221,343 acres which the county covers, 85,306 were under tillage, 110,525 devoted to pasturage, 3,705 to plantations, while 21,302 were waste (including bogs and mountains). The population bears to the soil the proportion of 0.23 per acre, and amounts to 51,650 persons (25,464 males and 26,186 females), who dwell in 9,701 houses. There were 226 houses uninhabited, and 29 in process of building, while the farm-steadings and out-offices amount to 16,047. The population has decreased since 1841 (when it numbered 86,228) at the average rate of 15.56 per cent. for each census period. The general valuation of the county amounts to £164,289 18s. Only 2,507 of the population possess the parliamentary franchise. The residences of the people are divided into four classes, according to their style of construction and accommodation, and we find that of the first class there are 680; in the second, 4,703; in the third, 2,952; and in the fourth, 1,366, of which 266 are mud cabins. Divided by occupations, we find that 1,452 persons belong to the professional class, 6,121 to the domestic, 411 to the commercial, 11,753 to the agricultural, 4,490 to the industrial, and 27,423 are classed as indefinite and non-productive; but as only 10,040 of these have attained their twentieth year, we may assume that the great majority of this class are children. Enumerated by religious professions, the population is divided as follows:—Roman Catholics, 45,621; Protestant Episcopalians, 5,656; Presbyterians, 132; Methodists, 156; all other denominations, 85.

With regard to education, the commissioners inform us that 24,496 can read and write, 9,286 can read only, and 17,868 are wholly illiterate. The Roman Catholic population being so numerically larger than all others, of course the want of education is more marked among that class. To the number of 17,868 are put down as wholly illiterate. This shows a sad want of school boards and compulsory education. We can hardly believe for a fact that only three persons are in the county who can express themselves in Irish only, while 127 can converse both in Irish and English.

Like every other county in Ireland, Carlow has suffered a sad decrease in its population. Notwithstanding the claptrap that is constantly kept up in the metropolis and other

cities in Ireland, anent education, for sectarian and political purposes, the state of Carlow proves (and other counties would prove the same) that neither the landed proprietary nor ministers of the different creeds do their duty by the people in the matter of education. Where there is a lack of education, there must also be a lack of industrial employment. The small amount of persons engaged in commercial and industrial occupations proper, in Carlow, is also a sad matter to reflect upon. In the agricultural line, of course, the greater majority of the population are employed, and it may easily be guessed that the greater number of persons engaged in agricultural pursuits are more or less illiterate. We would have expected that such a county as Carlow would long since have developed her industrial resources. Her staple trade of corn, flour, meal, malt, butter, bacon, and other provisions, including, of course, the famed "Carlow onions"—a street "cry" old Dubliners well remember in years gone by,—is not sufficient to meet the future and growing wants of her modern population. On the western side of the river Barrow a colliery range extends from north to south through the barony of Idrone West. We believe the only manufacture in the county is a remnant of trade confined to the production of some coarse woollen cloths. With granite and coal or stone-coal veins throughout the county, there is room for Carlow to make an attempt to better her condition. The rivers Slaney and Barrow afford great facilities, if they were properly availed of, as sources of water-power, for machinery or channels for conveyance.

The town of Carlow, though a tolerably busy town at times, needs much improvement, which it would be well if her Town Commissioners attended to. Its sanitary condition might be looked after a great deal more than it has been. Carlow cannot live upon her historic memories; it is her industries, not her antiquities and historic associations, that will help her hereafter to become prosperous, and a place of interest and resort. She has amongst her public buildings a college for divinity students, and she has also a lunatic asylum; but her court-house, gaol, and barracks, if they were utilised less, her lunatic asylum would possibly be more empty. In educating her poor, she will diminish crime and increase her industrial pursuits; and it behoves her public instructors and ministers of all creeds to teach and instruct as well as preach, if they would carry out their mission of acting the part of honorable and conscientious members of the community.

We have supplemented the data of the commissioners' report with our own remarks, for we feel it rather a humiliation to the people of this country to give cause to be exhibited in these census reports as a people for whom civilization or education as yet have seemed to have done so little. There are, however, other counties at the present moment in a more backward condition than the county of Carlow.

OUR IRISH COAL FIELDS.

We are glad at last to see an interest awakened on the Irish Coal question, a subject to which we often directed attention. It would seem that in this kingdom no matter, however urgent, will be taken up until some dire necessity pushes those vitally concerned to bestir themselves. The Press

of this city are anxious now to prove their anxiety in this Coal question, as if it were a novel undertaking—a fresh flash of lightning suddenly illuminating their misty understandings. How often and how often have we not pointed out the mineral and building resources, not alone of the county of Dublin, but of several other counties of Ireland, and produced evidence in support of our own researches. A Lombard, a Boate, a Ratty, and a Kirwan would appear to have written in vain, and a Berkeley and a Swift to have never lived in Ireland. "The constant drop," it is said, wears the stone; and it may be that our continual and persistent advocacy has penetrated into quarters where it has at last had some effect.

Our great countryman Richard Kirwan, in his "Elements of Mineralogy," one of the first regular treatises that reduced the question to an exact science, speaks of many minerals and their properties. Some of his remarks, though written in the last century, will not be out of place at the present day, when the Irish Coal question is on the boards. Speaking of "pit, or stone-coal," Kirwan writes:—"Coal is a black, solid, compact, brittle, inflammable substance, of a moderate hardness, laminated texture, more or less shining, but rarely susceptible of a good polish; does not melt when heated, and always leaves some ashes. It seems to consist of petrol or asphaltum, intimately mixed with a small proportion of earth, mostly argillaceous, seldom calcareous, and often with pyrites. According to Mr. Gerhard, spirits of wine extracts a red colour from it. Caustic fixed alkali attacks the bituminous part, and fat oils act on and form a varnish, at least with some sorts of it. A fixed alkali has never been found in it, nor any sulphur, except it contained pyrites. Four varieties of it deserve to be distinctly considered; none of them are electric, *per se*."

Writing of Cannel coal and Kilkenny coal, Kirwan thus describes it:—"Cannel coal is of a dull black colour, breaks easily in any direction, and in its fracture presents a smooth conchoidal surface, if broken transversely. This sort contains most petrol, and in a less dense state; hence, it burns with a bright lively flame. Its specific gravity is about 1.27."

"Kilkenny coal contains the largest proportion of dense petrol or asphaltum, and hence burns with less flame and smoke, and more slowly, though intensely. The quantity of earth in this coal does not exceed one-twentieth of its weight. Its specific gravity is about 1.4. It is frequently mixed with pyrites."

Describing the properties of coal containing a moderate proportion of petrol and bitumen, Kirwan says:—"This burns with more or less flame according to the proportions of petrol. In its fracture it presents a rougher surface than Cannel coal. Its specific gravity is from 1.3 to 1.37. The best coal is of this sort. By distillation it affords, first, fixed air, then an acid liquor, afterwards inflammable air, and a light oil of the nature of petrol, then a volatile alkali, and lastly a dense pitchy oil; the residuum is nearly three-quarters of the whole, and being slowly burnt affords 13 per cent. of ashes, which is mostly argillaceous earth, of which three-hundredths or thereabouts is magnetic."

"One hundred parts of this coal contain about 17 of earth, of which 4 are martial; hence we see that coal does not consist of

shistus, penetrated with petrol, as many have thought, for then a large proportion of siliceous, magnesia, and calcareous earth should be found in it."

Notwithstanding the advance made in the science of mineralogy and the change in nomenclature since the days of Kirwan, his facts generally are undisputed in most of the subjects he has written upon in his "Elements of Mineralogy." We produce the above extracts, as they may be of some interest at the present time in the matter of Irish coal, whether it may be in Kilkenny, Leitrim, or Antrim, or elsewhere in Ireland. Who knows but some enterprising miner will strike "ile" with his boring-tools, from which an almost chronic jet of petroleum may keep welling up. A good mine or quarry of asphaltic material might also reward some would-be diligent searcher or explorer who will sit and dream no longer at home, but set out on his geological rambles.

Speaking seriously, we recommend the development of the Irish coal beds to the profound attention of men of capital in Ireland. There are no obstacles in the way, and the facilities for carrying out the enterprise are ample and encouraging.

DUBLIN SANITARY ASSOCIATION.

We have to thank the honorary secretaries of this association for their promptitude in furnishing us with weekly reports of their proceedings. The "Working Committee" meet every Thursday at four p.m.

Letters were read on the 19th ult. from the Secretary of Public Health Committee, stating what steps had been taken to abate nuisances reported last week; from the Secretary of No. 1 Committee, acknowledging one from the Secretary of the Dublin Sanitary Association forwarding a report upon the state of the Corporation depots; and from the Kings-town Township Commissioners, expressing their willingness to co-operate with the Dublin Sanitary Association. The Rev. Henry Hogan enclosed a copy of a letter which he had sent to the Corporation respecting a nuisance which, as he alleged, continued unabated—referred to the Sub-committee of inspection.

The report of the Sub-committee for the Inspection of Nuisances was read, and it was then moved by Mr. J. J. Digges LaTouche, seconded by Professor Galloway, and resolved—That a copy of this report should be forwarded to the Secretary of the Public Health Committee. Various nuisances were reported in Blackhall-street and other localities for inspection by the sub-committee.

At last week's meeting reports were received from the inspection committees with regard to various nuisances in the neighbourhood of Cork-street, Ardee-street, &c.; also in the neighbourhood of Blackhall-street and Phibsborough-road. These nuisances were ordered to be reported to the Public Health Committee. No steps appear as yet to have been taken with regard to the nuisance reported August 29th, in Foster-avenue, Summerhill-bridge:—

The following resolutions were adopted:—

"That the present sanitary staff (of the Public Health Committee), consisting of eight sergeants and two inspectors, is totally inadequate to carry out a thorough system of inspection for the city of Dublin. On this ground the committee of the Sanitary Association would impress upon the Public Health Committee the urgent necessity of at least doubling the number now employed. A copy of this resolution to be sent to the Public Health Committee."

"That the inspection sub-committee be requested to consider the best means of making a complete sanitary survey of the city of Dublin."

"That a committee be appointed to consider the best means of carrying out the first object of this association, as put forward in the prospectus, viz:—To create an educated public opinion with regard to

sanitary matters in general; said committee to consist of the chairman, honorary secretaries, and treasurer, together with Mr. LaTouche, Drs. J. W. Moore and Grimshaw."

CORRESPONDENCE.

BUILDING IN CONCRETE.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—The "new system of building in concrete," noticed in the last number of your journal, I have been familiar with for some time, and practically tested it three years ago in the construction of a porter's lodge in the vicinity of this town. The lodge to which I refer has been so constructed that it can be readily taken asunder in sections, and re-erected in another locality, without material injury. I had the framing saturated with a preserving liquid some time before it was put together.

A. T. JACKSON.

Belfast, 27th September, 1872.

THE NORTHERN COAL CONTROVERSY.

Mr. William Gray, of the Belfast Naturalists' Field Club, has lately been engaged in a controversy with some other writers or newspaper correspondents, who aver that there is a large deposit of coal in the neighbourhood of Belfast. In reply to one of the latest reiterations upon the subject, Mr. Gray writes: "The popular belief is, that coal is to be found close to the town (Newtownards), and that it deserves more attention than it has received." The paragraph continues to state that two labourers used to tell they were employed in sinking a shaft, that they reached coal, and that they took some home, and burnt it, &c., but that men from England closed up the mine. Now all this is founded on fact, but the important points are somewhat perverted. Several shafts were sunk through scarcity for coal in the neighbourhood of Newtownards, from the year 1780 up to the year 1784, under the direction of the Bangor and Newtown Company. I have had the advantage of examining the manuscript journal of the company, and it gives a detailed account of each of the shafts sunk, some being to the depth of 240 feet. The writer of the record was evidently unacquainted with geology, but he gives very faithful records of each shaft, which show that in every case the new red sandstone was bored through, and the black shale of the Silurian rocks reached; proving that no coal existed there, although the black shale was often supposed by the workmen to be coal. The result of these experiments is embodied in a report by Mr. Joseph Jackson, dated 23rd March, 1786. The journal states that "Mr. Joseph Jackson came from Dublin to view the mines, &c., by desire of the company, and made his report thereon."

In this report Mr. Jackson describes the several trials made, giving the position and depths of the shaft and the strata met with, together with such information as he obtained by inquiry in the locality; and then, describing the geology of the district, he concludes as follows:—"I shall now consider how far these appearances tend to discovering whether or not there may be seams or bands of coal contained in the district. We find by quarries that are opened, as well as by the borings, that the red free-stone is incumbent on the white; we find, also, that the white freestone is incumbent on the primitive rock all around the mountain of Scrabo; and we find that the freestone is incumbent on the primitive at Anderson's Hill, at Bowleren, at Killarn Glen, and Kirkdonnie Glen; and in James Chambers' land, as proved by the boring, we also find that the horizontal free-stone beds rise towards the mountains of Scrabo, and towards the primitive rocks in the other places, which appearances are sufficient proof, in my opinion, that there are no seams or bands of coal contained within the district described."

"The trial at Crawford's Glen doth not require much investigation, for, as the whole

glen and the adjoining country consists of the primitive rocks, if coal be ever found in that rock it will be contrary to everything I have ever seen or been informed of."

Such is the clear opinion of a mining engineer eighty-six years ago, an opinion all our advanced scientific information only tends to confirm.

It is no wonder that the workmen of that day should consider black strata to be coal, when the better-informed of our own day so frequently make the same mistake. All that is black is not coal is daily confirmed. For example, we have at Ballygowan the same kind of rock found as in the shafts at Newtownards. A few years ago some influential persons considered that those rocks at the surface indicated the existence of coal below, and a shaft was sunk, at considerable expense, through rocks that any student in geology knows belong to a zone very far below coal. The result was, as science would predict, no coal was found, but some fossils were turned up, characteristic of beds quite outside the region of the coal measures.

REPORT ON THE STORAGE OF GUN-COTTON.

As gun-cotton is a material of great and growing importance as a mining and blasting explosive, it will not be amiss to give the conclusion arrived at and issued by the committee appointed to report upon its safety and storage:—

"As gun-cotton is not materially, if at all, injured by being kept in a damp state, and as the operation of drying can be easily carried out, it is unnecessary to store gun-cotton in the dry state, and the committee think it should not be stored dry in larger quantities than are required for the current wants of the service. Apparatus for drying should be established at all stations where dry gun-cotton is required for use.

The present service pattern box is objectionable for packing dry gun-cotton; its strength is an element of danger, in the event of the accidental ignition of a store of gun-cotton packed in such boxes; and it is unnecessarily strong for transport.

In a store of any construction, the ignition of large quantities of dry gun-cotton packed in strong boxes will be followed by violent explosion; but in lightly-made boxes, or in boxes designed specially to facilitate the escape of the heated gas before it has reached the exploding point, and in magazines lightly constructed, ignition will probably not be followed by an explosion; but the committee are of opinion that the experiments recorded do not afford a sufficient guarantee that ignition will not be followed by explosion if the quantity, however stored, be very large, or the building be exceptionally strong.

Taking these points into consideration, the committee think that dry gun-cotton, wherever stored, and in whatever quantity, should be treated as an explosive, and that the precautions now observed with explosives generally, as regards locality and description of building, should apply also to gun-cotton.

Gun-cotton in the wet state being perfectly unflammable, no special regulations are necessary for its transport; in the case of dry gun-cotton, which, under ordinary conditions, is non-explosive, but readily inflammable, the committee are of opinion that it may be safely moved under the regulations which govern the transport of gunpowder.

The evidence obtained by the committee tends to show that pure gun-cotton is a stable material, but experience on this point is limited. They think it therefore preferable at present to follow the more prudent course of excluding it from magazines containing gunpowder; although they consider that gun cotton may be stored, when convenient to do so, in magazines built for gunpowder. It should, however, be understood that when circumstances absolutely require it, such as when a second safe store is not available, dry gun-cotton may be temporarily placed in a magazine with gunpowder."

NOTES ON THE ECCLESIASTICAL
ARCHITECTURE OF IRELAND.BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A., SCOT.

X.—THE NUNS' CHURCH.

THE interesting remains of this building lie eastward of the cemetery, and there appears to have been a tigher or causeway connecting the two localities. Close to this causeway, at the left-hand side, is a small low mound, which retains the name of the Cairn of the Three Crosses, as already alluded to. Further on to the right was the Relig Calliach, or Cemetery of the Nuns; a score yards east of which were the remains of the church with its surrounding cashel—the latter, I regret to say, now nearly obliterated, with the exception of a small portion at the south side, which shews it had been a substantial piece of well-constructed masonry. The church consists of a nave and chancel, the former being 36 ft. in length and 19 ft. in breadth, and the latter 14 ft. in length and 13 ft. 3 in. in breadth. The entrance was in the west gable, by a deeply-recessed doorway, 2 ft. 10 in. wide at sill, and 2 ft. 8 in. at springing of arch, the jambs inclining inwards; the height 5 ft. 6 in. to top of jamb capitals. The jambs were composed of two engaged pillars and two piers at each side; the external shafts had a plain chamfered abacus; the internal ones, richly-carved capitals; the piers had their surfaces richly diapered with a variety of ornament, and had also elaborately-carved capitals. The arch was composed of four members: the external one sprang from grotesque heads, and was enriched with a line of balls and a fern-leaf ornament; the second was cut into a series of chevron blocks, each incised with bold lines and enriched with pellets; the third has a line of grotesque heads biting a roll moulding, all deeply undercut; the fourth had a torus moulding on the angle, the front face incised with lozenge panels and flowers, the soffit enriched with chevrons and pellets. The bases of both piers and pillars consisted of a plinth and chamfer. This doorway has been reconstructed in the late reparations, but small portions of the original work of the internal jamb and arch-member remain.

The walls of both nave and chancel are down to within an average of 2 ft. in height; therefore I could not determine the number, position, or character of the window-opes.

The chancel-arch is a feature of remarkable interest; it is 9 ft. wide clear of internal jambs, and 15 ft. 6 in. to out and out of the external piers. It is formed of a series of piers enriched with angle-shafts, as shewn on the accompanying plan, and a corresponding number of arch-members, most elaborately carved. The details shewn on plate are reproduced from a drawing by Mr. Gordon M. Hills in the *Gentleman's Magazine* for February, 1864; they give some idea of the chaste and beautiful ornamentation of this valuable specimen of native design and workmanship.

The walls of the nave are 8 ft. in thickness; those of the chancel, 3 ft. 3 in. The masonry is of very superior character to that in the churches within the great cemetery, excepting Temple Finghin, being of large-sized blocks partially dressed, and fitted without spawling. The material is limestone; that of the carved work a fine-grained, light-coloured sandstone.

The Nuns' Church is one of the few early ecclesiastical buildings in Ireland the date of which can be accurately fixed. The present remains undoubtedly belong to the church erected by Devorgilla, the daughter of Murchadh O'Melachlainn, in A.D. 1167, as we find recorded in the *Annals of the Four Masters*, as follows:—A.D. 1167.—“The Church of the Nuns at Cluain-Mic-Nois was finished by Dearthach O'Melachlainn, daughter of Murchadh Ua Maeleachlainn.” That a former church existed on or near the site of the present one, we have evidence in the following annal, under 1082:—“The Cemetery of the Nuns of Cluain-Mic-Nois was burned, with its

Stono-church, and with the eastern third of all its establishment.” It is highly probable that the edifice which was completed in 1167 was the successor of that destroyed in 1082. The enrichments of the arch-members of the doorway and chancel-ope are of the same forms as we find in buildings of a similar date in France and England. The capitals, however, are not so; their design is peculiarly Irish, and the plentiful use of the fret and scroll on the bells would suggest an older date. There is undoubtedly an incongruity between the capitals of the piers and jamb-shafts, and that of the arch-members; after all it may be that the “finishing” of Devorgilla consisted in the reconstruction of those portions of the building which had been damaged in 1082, and had lain in ruin until restored by the daughter of Melachlainn.

The annal which records the completion of the Nuns' Church mentions also the erection of another church at Clonmacnoise, as follows:—“A church was erected at Cluain-Mic-Nois in the place of the Dearthach by Conchobhair Ua Ceallaigh and the Ui-Maine.” Here we have a positive notice of the erection of a church on the site or in place of an older one, named the *Dearthach*; this term, as I have already shewn, signifies an *Oak-house*, and was applied to oratories built of that material in places where stone was not convenient; there is also no doubt that the term continued to be applied to small churches when oratories of oak ceased to be constructed. There are two references in the *Four Masters* to the Dearthach of Clonmacnoise. Under 1081, we find that “Gillasidnata, son of Amhalgaidh, son of Flann, lord of Calraige, was slain by Maeleachnaill, through the miracles of Ciaran, for he had plundered the oratory of Cluain-Mic-Nois in that year”; and again, at A.D. 1098, “The oratory of Cluain-Mic-Nois was burned by Muintir-Illamain, i.e., by Cuaille Mac Aedha.” In both notices the original term is *dertach*, translated *oratory*. This church, erected by Connor O'Kelly in A.D. 1163, must have been of a similar type to the Nuns' Church, yet we have none remaining that bears any affinity to it, excepting Temple Finghin, the chancel arch and doorway of which are certainly of about the same age. Could the present chancel of the latter have been the Dearthach alluded to in the annal, originally consecrated to St. Finghin, and O'Kelly's Church the nave which was added to it, the entire maintaining its original name? I have already shewn that it is far more ancient than the nave—is in fact one of those primitive churches already described, and to which in after times naves were added.

None of the other buildings indicated on the map by unshaded walls are now in existence. When Blaymires made his map, the walls at least appear to have been standing. He indicates four churches—Temple Kelly, Temple Gauney, Temple Espic, and Temple Killin: not a trace of any of these remains. The *Annals of the Four Masters* refer to the existence of several other buildings in this place which do not now exist, and which give us some idea of the nature of these establishments; thus at 977 we have a reference to the *Lis-aidheadh*, or Fort of the Guests; and at 1081, 1093, 1106, and 1166 to the *Tigh-aidheadh*, the House or Hospitium of the Guests.

The largest collection of inscribed grave-stones hitherto brought to light in any locality have been found in the Cemetery of Clonmacnoise. They have from time to time been copied by various hands, as Petrie, Windele, O'Neill, and others, and are now in course of publication by Miss Mary Stokes, the two numbers of her work issued being most faithfully and admirably rendered. Mr. Kieran Molloy, the zealous and faithful custodian of Clonmacnoise, informs me that over one hundred inscribed stones have been found there; these are all carefully preserved in the sacristy of the cathedral, under lock and key, but are at all times available to the student, by application to Mr. Molloy. The inscriptions are all in the Irish language and character, while the incised ornamentation—

generally crosses—is of the most beautiful and varied design.

The artist Blaymires, who was employed to make drawings of this group of remains for Harris's edition of Waro's *History of the Bishops of Ireland*, has left behind him a very curious and characteristic letter respecting his visit and labours at this place. This letter, though not formally addressed, was evidently written to Mr. Walter Harris, and has been published by Sir William Wilde in the *Journal of the Royal Hist. and Arch. Association of Ireland*, vol. 1870, pp. 256-8. As it has such an intimate connection with the present subject, I make no apology for giving it in *extenso* :—

“Clonfert, Oct. 7th, 1738.

“SIR,—I received both your letters, and am now got safe to Clonfert. I arrived here on Wednesday last, but was forced to swim my horse over the Shannon, and had nothing to go over in but a little cot, the wind being very boisterous and the river run, which put us in danger; but when we was safe over we was glad as a parcel of mariners arriving after a storm at the desired port. This inconvenience was occasioned by the boat that you went over in being gone back to Mr. Moore's. I have finished my draught of the Seven Churches, after labouring almost day and night. It has been the most laborious draught I ever attempted. It is tolerably well finished, and the variety it affords is extraordinary. I would not have finished such another to take it from the things under ten pounds, if it was in Dublin. For if I had not used all the diligence imaginable, I should not have finished there this fortnight. I will here give you a description of it. On the left-hand side is first the fine door belonging to Temple McDermott, which appears upon the paper most natural. Next is the old Chapel belonging to the Nunnery, with a plan of the Chapel. The next is the west door of Temple McDermott. On each side of it a view of the Cross that stands before Temple Hurpan. At the foot of the left side is a view of the ancient palace belonging to the Bishop of Clonmacnoise, taken from the other side of the Shannon, and likewise two views of the large Cross which stands before Temple McDermott. On the right-hand side is a plan of the whole yard and churches, with their proper distances and situations, and underneath it is a prospect of all the churches and two towers in one view, taken from the other side of the Shannon. The towers bound the prospect on each side, which makes it appear very beautiful and exceeding graceful. No one point of view would bring in all the churches but this I have made use of. The draught is furnished with proper references from the best information I have been able to obtain, and I believe I may venture to say, that the whole together is the most complete draught that ever will be taken of that place. I have collected abundance of Irish inscriptions, which I have writ down upon a single piece of paper, but have not met any person here who could give me any satisfactory interpretation of them. I will fold up the paper with the draught when I meet any person by which to send it to you, but I propose to send Clonfert along with it. The Bishop had a servant went for Dublin the day before I arrived; they tell me he sends one to Dublin every fortnight. If so, I can perhaps catch an opportunity of sending them to you in that way. Clonmacnoise has been unavoidably expensive to me. I could not have necessities but what I was forced to send to Athlone for, besides I was obliged to have a man to attend me every day, besides taking share of what I had; I could not have done without one, for he has found me every stone that was grown over with earth that was in the churchyard, helping me likewise to survey the place, and went to Athlone for me as often as I had occasion, so that I could have lived cheaper in a town a great deal, all things considered. I was likewise obliged to treat several priests that came to see me, even for my own safety; for this affair had made a prodigious noise in the whole country,

and has spread, as I am credibly informed, through most part of Connaught—some reporting that I was the Pope's Legate, and was taking an account of the churches, in order that they should be repaired, which notice heaped abundance of blessings on me; but on the other hand, it was reported that I was employed by the Bishop of Meath to view them, in order that they might be pulled down to build a large parish church, which notion, if it had prevailed, would have proved fatal to me. Several priests came over the Shannon, some ten—some twelve miles—to satisfy themselves of the truth of it. However, after all, I bless God I am safe at the clerk's house at Clonfert. I am now on this fine door, which gives me abundance of pleasure. I can assure you that these two draughts will make no mean show amongst the Irish Cathedrals, but even will be the best amongst them. This place will take me up full three weeks. You must contrive to order me three pounds or three guineas to this place, or somewhere in the neighbourhood, or else I shall not be able to get to Limerick, nor even from Clonfert, if I have not such a remittance, which I beg you will do with speed; for I had next to nothing coming here, and, I presume to say, have acted with all the frugality possible. I was apprehensive how ill I should be set for a drawing board, and the morning I left you I took horse, and went to Athlone, and got one made there, which serves me here very well. I bought a quire of paper, and several other necessities I wanted, knowing very well what a place I was going to. Next morning I got to Clonmacnoise, about an hour after the boy was gone. They could not prevail on him to stay, though they told him they expected me every minute. Some informs me here that know Tuam very well, that there is a window in the east end of that church, that excels this door; but as I don't go there, it is not worth mentioning. I had like to have forgot to tell you, but you can remember, how it rained after you left me. It begun at Clonmacnoise on the Thursday night, and never ceased 'till the Wednesday following, which prevented me doing any great good during that time. The Shannon was raised to such a degree, that it overflowed all the neighbouring meadows, and came within less than thirty yards of the door of the lodge; so that when I looked out of my window, I had a sheet of water in front, and a sheet of water to the right, and a sheet to the left, so that I imagined myself at some fine country seat, but it made the air most intolerably cold. I have another thing to add, and then I shall conclude my long epistle. The Bishop and Mr. Clarke have both seen me, but take no manner of notice of me, though I have been here now four days; and the clerk tells me he is very sure they won't, because we disobliterated them in not accepting their offer. However I shall make myself easy where I am 'till you relieve me, which I hope you will do as soon as possible. The Bishop bears a miserable character here. Pray give my services to Mr. Lyons.—I remain your most humble servant,
J. BLAYMIRE.

Poor Blaymires seems to have accomplished his laborious task under great difficulties. What a pity that his drawing of that glorious porch at Ardferth has not been preserved!

I cannot close this account of Clonmacnoise without referring to the good work accomplished there by the energy and zeal of the Rev. James Graves, who, having visited the ruins, was struck with their dilapidated and dangerous condition; and, considering it likely that further neglect would insure their entire destruction, he brought the subject before the members of the then Kilkenny Archaeological Society, and by the aid of subscriptions, contributed by many members of that body as well as by outsiders interested in the preservation of these ancient remains, he was enabled to accomplish the good work of at least arresting the progress of destruction. The following report of what had been effected at Clonmacnoise was read by the rev. gentleman before the quarterly meeting

of the society, held on October 18th, 1865, and has been published in their *Transactions* :—

"On Tuesday, April 24th, he (Mr. Graves) proceeded to Clonmacnoise, and in conjunction with the rector of the parish, the Rev. Charles A. Vignoles, made a careful survey of the ruins, and arranged a plan of operations. In order to give a clear idea of what was effected, it might be necessary to remind the members that the ruins of Clonmacnoise resolve themselves into three principal groups, viz., first, the Cathedral, with its surrounding cluster of mortuary churches, and the two round towers, all enclosed within the Churchyard of Clonmacnoise; second, the Nunnery, or Rellig Caillach, situated some distance to the east of the first group; and third, the Castle of Clonmacnoise, built within a primeval earthwork or rath, and distant a few hundred yards west of the churchyard. The last group, though interesting to the antiquary, was not considered to come within the scope of the Repair Fund, as no part of it was in imminent danger of falling, and the absence of all decorative architectural features deprived it of especial value as a landmark in the history of Irish constructive art. To the first two groups it was therefore determined to confine the expenditure of the funds. The Rellig Caillach he would take first, and briefly describe what was done there; and here he should mention that, the remains of this primitive monastic establishment being situated on private property, it was necessary to secure the concurrence of the immediate proprietor, Mr. Charlton, of Clonmacnoise House, who kindly afforded every facility for the work, and allowed the sand needful for the building operations to be raised on his land. The Rellig Caillach consisted of an enclosure, in the shape of an irregular parallelogram, the massive *septum*, or fence, of which was originally faced with huge undressed stones, with grouted rubble-work in the centre. Within this *septum* were to be seen the remains of a small but very interesting church; the walls in most places level with the surface, which swelled up round them in heaps of rubbish and *débris*. At the west end, just opening above the grass-covered mounds of fallen material, might be seen portions of the jambs of a fine western door, whilst of the chancel-arch the two piers remained, with a few stones of two orders of the arch *in situ* in the northern side. The chancel-arch had originally consisted of three orders, with hood-moulds on both faces; but of these, all except one had fallen, when the plates which illustrate Harris's *Ware* were engraved more than a hundred years ago. This remaining order had fallen within the memory of persons now living. The first step taken was to collect all the stones of the fallen arch which were to be found in and near the ruins of the church. Gangs of labourers were then set to work, both inside and outside the church, it being determined to clear away all rubbish down to the original floor internally, and to the plinth which ran round the walls externally. It was hoped that the remaining stones of the fallen chancel-arch would be found in the course of these excavations; and this expectation was in a great measure fulfilled. The excavators, having commenced their work at the western end of the church, proceeded to remove the mounds of grass-grown rubbish that had accumulated round the site of the doorway. In a very short time carved stones were lighted on; and as they came nearer to the entrance, it was evident that the materials of the doorway of extraordinary richness lay where they had fallen when its arch succumbed to time, or the more destructive hand of man. Carefully avoiding injury to the delicate carved work of the jamb-stones and voussairs, the exciting work of exploration proceeded; even the most ignorant labourer evinced an interest in the discoveries which every moment produced, and ere long he (Mr. Graves) had the intense gratification to see arranged in order, on the grass, nearly every stone of a magnificent Hiberno-Romanesque doorway. This was

an entirely unlooked-for discovery, as not a single stone of the arch had been known to exist before the excavations commenced. The entrance doorway having been cleared out, the work of excavation proceeded eastward; and, as the workmen approached the chancel-arch, further discoveries were made. The stones of only two orders of this arch had been previously discoverable: now, however, the materials of a third order, of a different design, but equal richness of workmanship, were turned up in great numbers; and in addition to this third order, the stones of the enriched hood-mould of the western face of the arch were also recovered. The excavation of the church, both internally and externally, was then proceeded with; several hundred cubic yards of rubbish were removed, and on an average about 4 ft. of the walls of the church exposed to view, showing the style of its massive masonry. This portion of the work, though expensive, was easily accomplished, as any amount of labour was at command. Now, however, a more difficult job had to be taken in hand, and it was with some difficulty that a sufficient number of skilled masons and stonecutters was procured. On plumbing the pier of the chancel-arch, it was found that the southern pier was out of the perpendicular, inclining bodily westward about 2 in.; this inclination had originally caused the ruin of the arch, and if left uncorrected, it would be impossible to re-erect it satisfactorily or safely. The set of the pier had, however, plainly arisen from a defect of the foundation of old standing, the masonry being solid and unshaken. It seemed, therefore, sufficient to remove the capitals of the several orders, and re-setting them in cement and slate packing in the joints, to level their upper surfaces for the reception of the arch. The piers were then strengthened by re-building the ruined side walls to the height of the capitals. Timber was next procured, and three separate centres having been constructed, the re-building of the chancel-arch was commenced. The voussairs were carefully set in Portland cement, all the original stones being first used up, and each order keyed in with plain new voussairs where deficiencies occurred. The first order having been keyed, the second centre was erected, and the stones of this order set, tailing back over the first order. In like manner, when this order was completed, the third centre was put up, and the outer order with its hood-moulding carefully set. Additional masons the meanwhile carefully haunched up the arch in solid masonry, which was continued for about 4 ft. above the crown, the sides being roughly stepped to a gable form to obviate too great formality, and the style of the old masonry being adhered to as closely as possible. The work was then allowed to set, and the masons removed to the west door. When the rubbish was cleared away, it was found that the existing portions of the jambs, as in most ancient Irish doorways, inclined inwards; a plumb-rule was set to this incline, the stones removed to the bases, re-set in cement, and completed to the tops of the capitals with the materials found in the rubbish. The different orders of the archway were then set one after the other, plain voussairs being cut to key them in where the original stones were deficient. The arch was then haunched and weighted at top, as in the case of the chancel-arch. The doorway being finished, now came the critical part of the work—the striking of the centres. The chancel-arch was of considerable size, and being for the nonce architect and builder, and having overruled the masons in some points, he was a little nervous for the result. He was happy to say, however, that all remained 'stiff and staunch' when the supports were removed; and he had the great satisfaction to see this dated example of ancient Irish architecture restored in some degree to its original state, close on the completion of the seventh century from its erection.

"Whilst the works at Rellig Caillach were in progress, the ruins comprised within the churchyard and grouped round the Cathedral were not forgotten; gangs of labourers were

employed excavating at the west end of the Cathedral, in hopes that the fallen stones of the west door might be discovered. This expectation was disappointed, as only one or two were found. However, at the eastern end of the church the excavators were more fortunate; and numerous details of the original late twelfth-century windows with which the east wall was pierced were brought to light, as were also some seventeenth-century monuments of the MacCoghlanes. Excavators were also set to work at Temple Finghin, and the rubbish cleared away from the base of the round tower, and the side walls of the church—uncovering the base of a very rich twelfth-century doorway of three orders at the west end of the south wall of the church. Some of the carved stones and capitals of this doorway were found in the *débris*, but not enough to allow of its being re-built. The walls of the various ruined churches were then repaired and pinned where needed; and the quoins, which had been torn away for several feet from the ground, were carefully restored. The curious little cell, called St. Kieran's Church, which was tottering to its fall, was pinned and buttressed, and the rubbish cleared out from its interior. The ivy, which had for centuries enveloped the greater round tower, called O'Rourke's, had inserted its stems between the massive courses of its northern side, and dislocating the stones threatened to cause the ruin of the centre structure at no very distant period. These courses were carefully taken out, stone by stone, the ivy removed, the stones restored to their proper beds, and solidly filled in with grouting—thus giving the base of the tower its original stability. Two other objects remained to be effected—one of which was the providing safe repositories for the many invaluable early Irish tombslabs strewed over the churchyard, and which were exposed to theft and defacement. This was accomplished by placing iron gates in the doorways of Temple Doulin, and of a vaulted chamber which opened off the Cathedral. Into these two inclosures were removed nearly all the Irish tombslabs; in the latter also were deposited the carved stones found in the excavations of the Cathedral and Temple Finghin."—(*Jour. Kil. Arch. Soc.*, vol. 1866, pp. 367-71.) Subsequently some repairs were effected to the cap of the lesser tower.

"THE QUERIST."

BY GEORGE BERKELEY, BISHOP OF CLOYNE.

(With Notes by "Dubliniensis.")

"FIRST PUBLISHED A.D. MDCCXXXV."

WHETHER nations as wise and opulent as ours, have not made sumptuary laws, and what hinders us from doing the same? [Before curtailing the expenses of our citizens, there are enactments wanted to curtail the wanton waste of public money, on the part of our local rulers.]

Whether those who drink foreign liquors and deck themselves and their families with foreign ornaments, are not so far forth to be reckoned absentees? [Yes.]

Whether, as our trade is limited, we ought to limit our expenses, and whether this be not the natural and obvious remedy?

Whether the dirt and famine and nakedness of the bulk of our people might not be remedied, even although we had no foreign trade, and whether this should not be our first care, and whether, if this were once provided for, the conveniences of the rich would not soon follow? [The dirt, nakedness, and want that existed so largely in 1735, existed nearly to the same extent in 1775, and at the period when Arthur Young made his "Tour through Ireland." Even at present, with shame we confess it, there is dirt, want, and rags in abundance, in our hamlets, towns, and cities; but the town councils and local boards are more to blame than the poor; though the bulk of the people should openly rebel against those custodians of nuisances.]

Whether comfortable living doth not pro-

duce wants, and wants industry, and industry wealth?

Whether there is not a great difference between Holland and Ireland, and whether foreign commerce, without which the one could not subsist, be so necessary for the other?

Might we not put a hand to the plough or the spade, although we had no foreign commerce? [More hands will be required to be put to the spade and plough, for it is from the cultivation of the soil all life and living springs. The twentieth century will need to do urgent work, that the spoilt children of the lazy nineteenth have died dreaming over. A day may come when in every smithy in Ireland, swords and other weapons will have to be hammered into coulters and ploughshares for the cultivation of the waste lands.]

Whether the exigencies of nature are not to be answered by industry on our own soil, and how far the conveniences and comforts of life may be procured by a domestic commerce between the several parts of this kingdom? [The idea of establishing a domestic commerce between one part of the kingdom with the other, is still worthy of consideration, even in these days of expeditious travelling and foreign trade.]

Whether the women may not sew, spin, weave, embroider sufficiently for the embellishment of their persons, and even enough to raise envy in each other without being beholden to foreign countries? [Yes, if they were not too proud to work, and too prone to remain the encumbered estates of their families.]

Suppose the bulk of our inhabitants had shoes to their feet, clothes to their backs, and beef in their bellies, might not such a state be eligible for the public even though the squires were condemned to drink ale and cider?

Whether, if drunkenness be a necessary evil, men may not as well drink the growth of their own country?

Whether a nation within might not have real wealth sufficient to give its inhabitants power and distinction without the help of gold and silver?

Whether, if the Arts of Sculpture and Painting were encouraged amongst us, we might not furnish our houses in a much nobler manner with our own manufactures? [Not the least doubt exists on this matter.]

Whether we have not or may not have all the necessary materials for building at home? [Let our readers give this, and several queries that follow, their careful thought. The good bishop in his day possessed a knowledge of technical matters far in advance of his peers, and if he did not practically build, he at least built up an educated public opinion to some extent in his day, that other deans, bishops, and patriots (?) that followed him made good use of.]

Whether tiles and plaster may not supply the place of Norway fir for flooring and wainscot?

Whether plaster be not warmer as well as more secure than deal, and whether a modern fashionable house lined with fir daubed over with oil and paint be not a fire-ship ready to be lighted up by all accidents?

Whether larger houses, better built and furnished, a greater train of servants, the difference in regard to equipage and table, between finer and coarser, more and less elegant, may not be sufficient to feed a reasonable share of vanity or support all proper distinctions? And whether all these may not be procured by domestic industry out of the four elements, without ramsacking the four quarters of the globe?

Whether anything is a nobler ornament in the eye of the world than an Italian palace, that is, stone and mortar skilfully put together and adorned with sculpture and painting, and whether this may not be composed without foreign trade?

Whether an expence in gardens and plantation would not be an elegant distinction for the rich, a domestic magnificence employing many hands within and drawing nothing from abroad? [Would that the rich as well as the

poor devoted a little more attention to gardening matters.]

Whether the apology which is made for foreign luxury in England, to wit, that they could not carry on their trade without imports as well as exports, will hold in Ireland?

Whether one may not be allowed to conceive and suppose a society of human creatures, clad in woollen cloths, and stuff, eating good bread, beef, mutton, poultry and fish in great plenty, drinking ale, mead, and cider, inhabiting decent houses built of brick and marble, taking their pleasure in fair parks and gardens, depending on no foreign imports either for food or raiment? And whether such people ought much to be pitied? [Ireland might have presented such a picture in the Bishop Berkeley's days if she were wise, and because she is not wise yet, she is not to be pitied for her want of exertion, but rather censured for not exerting herself to the extent of her facilities.]

Whether Ireland be not as well qualified for such a state, as any nation under the sun?

Whether in such a state the inhabitants may not continue to pass twenty-four hours with tolerable ease and cheerfulness, and whether any nation can do more?

Whether they may not eat, drink, play, dress, visit, sleep in good beds, sit by good fires, build, plant, raise a mine, make estates, and spend them? [The nobility and gentry did a great deal more in days gone by, and felt uncomfortable, notwithstanding. The good-hearted and bad-hearted gambled away their estates, and pistoled each other in the grey streaks of morning into the darkness of another world. Some, indeed, have built up a family and a name, and not a few, in the language of the poet,

"Have left their names to other times,
Linked with one virtue and a thousand crimes."]

Whether, upon the whole, a domestic trade may not suffice, in such a country as Ireland, to nourish and clothe its inhabitants, and provide them with reasonable conveniences, and even comforts of life? [The answer is self-evident.]

Whether a general habit of living well would not produce numbers and industry, and whether, considering the tendency of human kind, the consequence thereof would not be foreign trade and riches, how unnecessary soever?

Whether, nevertheless, it be a crime to inquire how far we may do without foreign trade, and what would follow on such a supposition?

Whether the number and welfare of the subjects be not the true strength of the Crown?

Whether in all public institutions there should not be an end proposed which is to be the rule and limit of the means. Whether this end should not be the well-being of the whole, and whether, in order to this, the first step should not be to clothe and feed our people?

Whether there be on earth any Christian or civilised people so beggarly, wretched, and destitute as the common (poor) Irish? [In the good bishop's days their lot was very sad, indeed, and for long years after. The common (?) Irish, however, in these days are uncommonly better off than in the days of Swift and Berkeley, though rags, wretchedness and dirt are nowise sparse exhibitions in various portions of the British Islands.]

Whether, nevertheless, there is any other people whose wants may be more easily supplied from home? [None.]

Whether, if there was a wall of brass a thousand cubits high round this kingdom, our natives might not, nevertheless, live cleanly and comfortably, till the land, and reap the fruits thereof? [This query of Bishop Berkeley has been ever the most universally quoted one of the entire series by politicians. Though there are others of his queries equally important, this one epitomises the lessons that the bishop endeavoured always to convey—self-reliance, self-exertion, and a self-supporting people.]

What should hinder us from exerting ourselves, using our hands and brains, doing something or other, man, woman, and child, like the other inhabitants of God's earth?

Be the restraining our trade well or ill-advised in our neighbours, with respect to their own interest; yet, whether it be not plainly ours to accommodate ourselves to it?

Whether it be not vain to think of persuading other people to see their interest while we continue blind to our own?

Whether there be any other nation possessed of so much good land, and so many able hands to work it, which yet is beholden for bread to foreign countries? [And yet we are beholden to foreign countries for bread, notwithstanding the millions of acres of waste land, and the thousands of idle hands who, unfortunately, have to flee the country. We are also beholden to foreign countries, and our neighbours nearer hand, for a portion of the live stock we ourselves have reared. It comes back to us, however, in the shape of salted dead stock, in various forms. Even Paddy's adult "*boncen*" comes back in the shape of genuine cured Yorkshire ham (that he dare not smell at), though the living grunter, like a million and more of his comruges, made his obstinate march over many a mile of road to Ballinasloe fair, where the lynx-eyed pig-jobber pounced upon him for his admirable proportions.]

Whether it be true that we import corn to the value of two hundred thousand pounds in some years? [When the "*Querist*" was first published the statement held good to the extent mentioned.]

Whether we are not undone by fashions made for other people; and whether it be not madness in a poor nation to imitate a rich one? [In public, as well as domestic, life the struggle to keep up "*appearances*" has resulted in ruin, shame, bankruptcy, and madness.]

Whether a woman of fashion ought not to be declared a public enemy? [Let those who are without the sin springing from an indulgence of this fashionable vice cast a stone at their sister. Extravagance in dress is a crime, but we must not declare the ladies public enemies, or the milliners and drapers will unite in a holy alliance, and gibbet all stiff-necked lords of creation. In any revolt against plaids and silks in this city, depend upon it the Scotch houses would not die without a hard struggle; and we fear the Georgians and the Mary Janes would stick hard by the tape and ribbon vendors while a hair of their chignons clung to their heads.]

Whether it be not certain that from the single town of Cork were exported, in one year, no less than one hundred and seven thousand one hundred and sixty-one barrels of pork, thirteen thousand four hundred and sixty-one casks, and eighty-five thousand seven hundred and twenty-seven firkins of butter—and what hands were employed in the manufacture? [Good trade that, early in the eighteenth century.]

Whether a foreigner could believe that one-half of the people were starving in a country which sent out such plenty of provisions?

Whether an Irish lady set out with French silks and Flanders lace may not be said to consume more beef and butter than a hundred of our labouring peasants? [Considering the dimensions of a silk dress in the present day, although the cost per yard is lower than in Bishop Berkeley's days, our Irish ladies consume more in bodily and head gear than would give a good dinner of beef or mutton daily to all our labourers, notwithstanding the high price of butchers' meat. The regret would be less if Limerick gloves and Limerick lace were more popular than it is, and the trade of Irish poplins and tabinets was encouraged to exist by the descendants of those ladies who were not ashamed to drive, in days gone by, on a morning visit to the looms and manufactories, long extinct, on the Coombe and in the Liberties of Dublin.]

(To be continued.)

ARTANE PUMP.

THIS unfortunate pump is becoming historic; but, then, pumps and their surroundings have been always historic. We believe it was Swift said once, by way of incentive instead of caution, "Don't nail his ears to the pump." On another occasion, when an unfortunate wight was about to suffer, the Dean slyly said, "Don't daub the blockhead." We are not going to point out, by implication or otherwise on the present occasion, the blockhead, or other head, who ought to have had his ears nailed long since to the Artane pump for his perversity. The following proceedings took place at the last meeting of the North Dublin Union in relation to the famous Fingal pump:—

THE ARTANE PUMP.

The Chairman submitted a report from Dr. Cameron, City Analyst, which, he remarked, took up twelve pages of letter paper, and included an elaborate array of figures, and was of a highly technical character.

Captain Lindsay thought officials who charged two guineas for their services might communicate with the board on proper paper.

The Chairman said the tenor of the report was favourable to the water, as well water. The position of the pump was, however, a bad one, as the drainage of part of the village was likely to make its way into the shaft of the well. The impurities of the water were at present of a trifling character.

It was decided to call the attention of the district sanitary inspector to the communication.

A conversation ensued with respect to the unsatisfactory working of the pumps erected by the board, which were as costly as they were inefficient.

CIVIC LYRICS.—No. XXII.

OUR "LOCUM TENENS."

The Lord Mayor wears a sword and mace,
And ev'ry Lord Mayor in his place
Who states the former Lord Mayor's case
As "*Locum Tenens*."

The Chairman can vacate the chair,
And drive pell-mell to sit elsewhere.
It matters not; there's one to spare
As "*Locum Tenens*."

The Engineer can make a pact,
And the Town Clerk may read the Act;
And the Law Agent proves the fact
By "*Locum Tenens*."

No. 1, bereft of pity,
Lets No. 2 whitewash the city;
While No. 3 sings an old ditty,
As "*Locum Tenens*."

The old, old tale and hullabaloo—
The Council's "got no work to do,"
Nor funds to do it—wirrastrue!—
By "*Locum Tenens*."

Salaries still are raised, and fees
For Chiefs, Catspaws, and Committees,
And other nuisances like these,
Per "*Locum Tenens*."

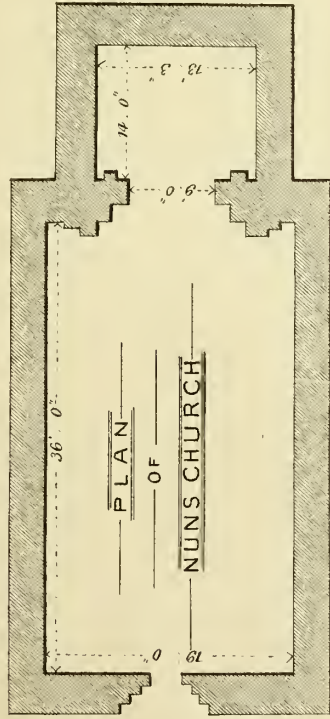
CIVIS.

THE AGRICULTURAL AND BUILDING LABOURER.

THE condition of the agricultural labourer has, during the present year, in the sister kingdom, excited considerable interest, and the agitation of the labourer's claims will, no doubt, result in bettering his condition. The builders' labourers, who comprise many thousands in their ranks, in London have succeeded in establishing, to a great extent, a uniformity of wages and working hours. The Irish agricultural labourers have scarcely improved their condition at home, though as soon as they crossed the Channel, or emigrated to America or Australia, they became altogether a new race of strong, healthy, and energetic labourers. Reward, it is said, sweetens labour; and the fact is too patent for denial, that the Irish agricultural labourer is scarcely more than half paid for his day's work. With better wages and better food he could do more work in shorter hours. We

wish our farmers and landed proprietors could see this fact, and if, seeing it, acknowledge it. In the matter of builders' labourers, in this and other cities, there is room for much improvement in their condition. They are entitled to every consideration from their employers. As working men they are generally the first at the job or building in the morning, and the last to leave at night, and, with the present prices of provisions and fuel, the food they can procure is not sufficient in quantity or quality for their necessities. Among the many important topics touched upon by Sir John Bowring, in his address as President of the Economy and Trade Department of the Social Science Congress, the present position of the agricultural labourers was thus referred to:— "The condition of the agricultural labourer is, in many respects, most unenviable, and very difficult it is for him to raise himself from his low condition. He is little disposed, except under very severe pressure, to quit the soil where he was born, and which his father had cultivated before him; and the poorer he is the less able is he to migrate. He belongs to no organised society to which he can look for relief in time of need, and the abuses no longer exist, or only on a small scale, which enabled the farmer to augment the labourers' pay by exacting, through the poor-rates, contributions from the public. Moreover, the farm labourers are, for the most part, very ignorant and widely scattered. They have few or no intelligent representative men among themselves, no press or papers of their own. But the better instructed workmen have not only their special clubs and unions connected with their particular trades, but they form part of an immense community, banded together by stringent rules, possessing considerable funds, having their recognised leaders, their newspapers, periodicals, and pamphlets; and, moreover, exercising, as they must, great and increasing influence, they are in constant communion with the leaders of public opinion in the various sections of the state. Whether a movement lately indicated by the Speaker of the House of Commons, to introduce the co-operative principle into the sphere of agricultural labour, would find the labourer ripe for its adoption—and here, as everywhere, 'ripeness is all'—is a question which time only can solve. There is a widely-spread feeling that something ought to be done, and a desire that effectual aid should be given. The agricultural power is of great weight in this country, and when it is discovered that there is, to a vast extent, a reciprocal interest which should bind landlord, tenant, and labourer in a common bond, good work will proceed."

The interest of cities and towns in the land question is of vast and growing importance. No one trade, profession, or calling can afford much longer to ignore the claim of the other. We are all mutually depending on each other, to a far greater extent than, perhaps, the majority of us care to acknowledge; and this mutual dependence, despite the difference of class or position, is enlarging, and must enlarge, in the British Islands, or foreign countries will run us down in the industrial race. The spread of education and the growth of public health is revolutionising the face of society. Whatever distinctions may exist in the future as to power and social position on the part of one class, this power or position cannot be maintained to

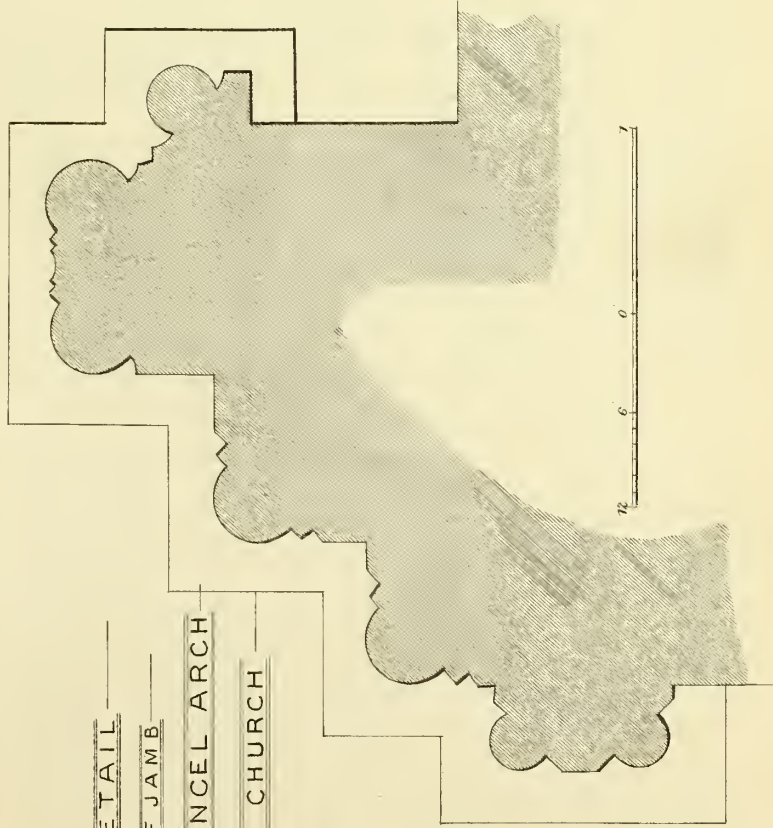


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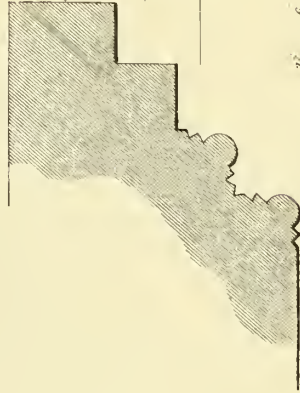
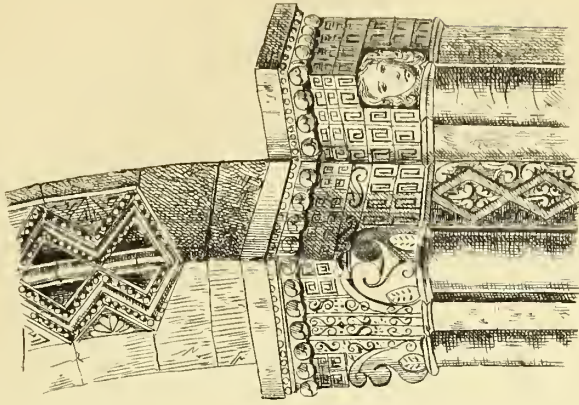
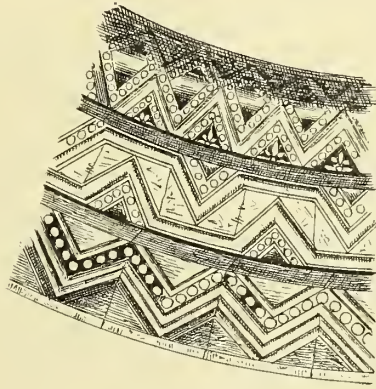
NUNS CHURCH



DETAILS OF CHANCEL ARCH

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PLAN
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THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

the absolute detriment of another class. All classes must be allowed a fair field for their labour and talents, or by an organisation within themselves they can cause serious trouble to those dependent upon them for the produce of their labour. Legitimate demands can never be construed into illegal demands; and while anarchy and violence is avoided, and no breach of the law takes place, reason herself must submit to fair arguments substantiated by facts.

We desire, as members of the community, to elevate ourselves, one and all, and we must concede the same privilege to work and struggle on the part of others, however humble. The labourers in the fields and cities have our sympathy, and so long as their claims are just we shall render unto them that degree of moral support to which they are fairly entitled.

OUR LOCAL LAGGARD.

THE proceedings of last Wednesday's meeting at the City Hall possibly amused those who had no longer their *Zozimus*. The worst of the municipal amusement is the reaction that follows immediately after, which may be epitomised in the singular word "disgust." Everything seems to be done by deputy in that enlightened assembly that brawls on Cork-hill, from the Lord Mayor down to the civic beadle or hall-porter. What is everybody's business is nobody's business, except where the chance of making a commission exists. It matters not whether it is two and a-half per cent. on the square setts, or five per cent. for playing one asphalt company against another. The dust, instead of being thrown upon the asphalt roadway, is thrown in the ratepayers' eyes; and the playing at cross purposes proceeds, accordingly, to the end of the chapter, whenever that may end.

The Corporation meeting was called to consider two things, the last-named being more important than the first. The asphalt-ing business in connection with Henry-street was got through after a manner; but the question connected with the Convalescent Home, *in re* the Public Health Committee, *i.e.*, the Corporation itself, was shelved again.

The curiosities of newspaper reporting may be studied with advantage by those who read the *Freeman's Journal* and *Daily Express* versions of Corporate meetings. The "Peep o' day" boys in Princes-street must sometimes, we imagine, get up before dawn, and while it is already dark, or they would not take it for granted that their versions of divers matters are swallowed down piecemeal by the infatuated and gullible public. What the *Daily Express* "incorruptibles" believe, we do not know; but after a careful study of both reports, we are able to arrive at a conclusion.

It is not often we have either the time or the misfortune to witness or sit out a Corporate meeting, but whenever we do we invariably find it to be one of the most driftless and demoralising exhibitions in the whole circle of public scandals.

No work is attempted, and, as a matter of course, no work is done. When we speak of work we mean practical business, not shallow and insane vapourings outside the matters at issue. Taxation, *i.e.*, extortion, is the sum total of the Corporate business of Dublin.

There is at present a staff of officials connected with the City Hall which exceeds by several the number required for the transaction of the work devolving upon the Corporation, and some of these, officials are maintained and their salaries increased under the pretence that the sphere of their duties is being enlarged.

If ever a borough was rotten to the core, the borough of Dublin is that one. Instead of practical business men having a hand in the management of the city affairs, we have a clique of fossil politicians and hirelings of

every hue, whose meanness is equal to their ignorance and incapacity.

Week after week, month after month, and year after year passes over, and still the city presents one of the saddest pictures of dirt and neglect of any city in the three kingdoms. A few leading thoroughfares get a little attention on the part of the paviors and scavengers, for obvious reasons; but the hundreds of back streets and lanes are festering in disease and filth. The streets of Dublin are a "crying shamo," and the River Liffey a chronic scandal to the Corporation of this city.

ARCHITECTURAL ASSOCIATION OF IRELAND.

WE have been favoured by the secretaries of this newly-formed Association with a copy of their rules and the programme for first session. We have already favourably expressed our opinion as to the objects to be attained by such a union of the "juniors" of the profession. Already a large number have been enrolled as members of the association. The opening meeting will be held on Thursday evening next, at the rooms, 212 Great Brunswick-street, when our esteemed friend the president, John James O'Callaghan, Esq., F.R.I.A.I., will deliver the inaugural address. We would enjoin all "who are engaged professionally in the study or practice of architecture, and those interested in the various arts and sciences connected therewith," to throw in their lot amongst this body, which promises to be the most truly useful and practical that has started in our day.

We are authorised to state that arrangements have been made with George Edmund Street, Esq., F.R.I.B.A., to meet the association on Saturday, the 12th inst., for the purpose of visiting the works in progress under his direction at Christ Church Cathedral. A more interesting introduction to the labours of the association could not have been arranged.

THE HEALTH OF THE PEOPLE.

THE last sanitary return of the Registrar-General, in relation to Ireland, affords some very valuable statistics in reference to the population, pauperism, emigration, and the public health. The district-registrars' notes on the sanitary condition of the several localities throughout the four provinces are of great importance. We cannot in our present issue enter into detail on the matters recorded, but we will just briefly refer to the sanitary question in relation. The mortality in the quarter ending June 30th was very high, showing an increase of 2,694 compared with the average of the corresponding quarter of the previous five years, and an increase of 3,607 on the second quarter of last year. This great increase in the mortality is attributed to two causes—first, the epidemic of small-pox, and secondly, the inclemency of the season. The reports as to the sanitary state of several localities shows them to be in very bad condition, and the causes, in most instances, of the sickness and death have been traced to the effects of impure water and filthy surroundings.

Here in Dublin, north and south, the absence of sanitary precautions on the part of the Corporation, and their neglect in providing a convalescent home, have led to a frightful mortality in small-pox and other zymotic diseases. The present report, or Registrar-General's Return convicts the Corporation, and establishes, to a palpable demonstration, their criminal neglect. It is openly stated by one officer in the northern district of the city:—"The want of a convalescent home tended also to increase the number of cases." Notwithstanding the number of cases of small-pox, and deaths resulting therefrom, and of fever, the municipal authorities of the city continued all through the year to act as if the lives of the

poor were of no consequence. The Registrar's return, full as it is of cases of neglect, and of deaths arising from impure water, bad drains, and accumulation of dirt around and within the dwellings of our poor, there were numerous cases of mortality which, though not occurring in Dublin, might be fairly attributable to the epidemic in this city. Many of the poor left this city with infection upon them, and died in workhouses, hospitals, and wretched homes outside the Dublin district.

We shall return to this report, for there is sufficient evidence of a corroborative character in it to convict our Corporation, and others in Ireland, of a crime of simple-murder!

PUBLIC BATHS IN KILKENNY.

THE Corporation of Kilkenny have accepted the tender of Mr. Walker for the erection of public baths in their ancient city. There will be one Turkish, besides plunge and shower baths. The works are to be subject to the supervision of an engineer, or other competent person selected by the Council. Total cost, £815.

ALLIANCE AND DUBLIN CONSUMERS' GAS COMPANY.

A REPORT and statement of accounts was submitted to the meeting of the above company yesterday. It is a very self-laudatory document from beginning to end. After dilating on the increased cost of coal, wages, and iron, &c., the company takes credit to itself for achieving a great many good things for its own and the public advantage, which the public, however, confesses itself ignorant of.

The income of the company is stated to have increased in sales of gas and other products to the amount of £8,000 over a former period. New and efficient appliances are stated to be in course of erection in Brunswick-street, and the increasing demands for gas in the township of Rathmines, Roundtown and Dundrum districts, have necessitated the laying down of a 12-inch main from Portobello Bridge to Roundtown. The "Dublin Gas Act" of 1871 provides for the substitution of twenty-candle for sixteen-candle gas, and the company believes that the public appreciates the change. As yet we fear the benefits are small, notwithstanding the act; for the gas that burns in our shops and dwellings, like the food we have often to swallow, is wonderfully adulterated.

The directors sum up their statement by drawing the attention of the shareholders to the profit and loss account, which is thus stated:—"After taking the sum of £1,481 12s. 10d. from the contingent fund, presents a net balance of £12,982 10s. available for payment of a dividend at the rate of 6 per cent. per annum, such dividend being as usual free of income tax."

After the reading of the report, and the chairman's motion for its adoption,

Mr. Darcy said he feared the affairs of the company were approaching a crisis, and it behoved the shareholders to look a little forward if the company was to continue a dividend-paying one. They were only paying 6 per cent. this half-year, which was 2 per cent. less than they paid six months ago, and they were obliged to take £400 from the depreciation fund. He should like to know where that fund was, for they owed no less than £102,000, and there was due to them only £37,000. Their expenditure had been 90 per cent. of their earnings. Formerly they had thirteen directors, receiving each £100 a year. The number had now become reduced to eight, and those eight still divided the £1,300 a-year amongst them.

The company have undoubtedly struck "ile," and when they perfect their appliances for the production of tar and gas liquor the public will receive the benefits—by paying for them. In the meantime, a little more light is necessary as to the income and expenditure, as well as in other directions.

THE NEW GENERAL POST OFFICE, ST. MARTIN'S-LE-GRAND, LONDON.

EXTERNALLY viewed, the new structure presents a fair but somewhat heavy appearance. The architecture is severely Classic in type, and but slightly ornamental withal. We have already furnished some particulars, but a general outline again of the new buildings will not be out of place. The new structure faces the old one in the street known as St. Martin's-le-Grand. The foundations were begun in December, 1869, and within a year from that date a very solid plinth of granite, from the De Lank quarries, near Bodmin, was set four feet above the groundline. Upon this plinth, Mr. Ayton, in the absence of the Postmaster-General, laid the first stone on the 16th of December, 1870. Since then the work has continuously progressed, Messrs. Brass having taken the contract for nearly £130,000. The strike in the building trade caused some little delay, but the building is now near to completion. The scaffolding is almost entirely removed, so that the several elevations are now fairly open to criticism. A large portion of the plastering of the rooms is also done, and many of the sashes are fixed; and unless anything unforeseen occurs, the internal arrangements will be completed before the end of the year, when the furnishing and fittings will have to be provided for.

The building is one of the largest of its kind erected of late years in the metropolis; and certainly presents a very imposing aspect when approached from Cheapside and Aldersgate-street. It is a rectangular structure, the measurement of its area being 286 ft. on the St. Martin's-le-Grand side, by 144 ft. on that of Newgate-street. Its height from the paving line to the top of the balustrade, is 84 ft. It consists of four storeys above the basement, and is in what is called the Italian style, the lower portion being distinguished by Doric pilasters, the upper by Corinthian, surmounted by an entablature, and balustrade which partly conceals the roofs. The first-floor windows have carved consoles representing lions' heads with ornamental rings in their mouths, and the line above them is enriched with fretwork of what is usually, though wrongly, called "the Grecian pattern." The entrance portico, opposite to that of the old Post Office, is a main feature of the new building. The lower pillars are of the Doric order with rusticated work, the upper are of the Corinthian, surmounted by a rich pediment, in the tympanum of which are the Royal arms, sculptured by J. Birnie Phillip, Esq., by whom the whole of the stone carving has been executed. The entire building is faced with Portland stone, and the four angles are ornamented with deeply-cut rusticated work. There is a somewhat unpleasant projection of its south-west angle into Newgate-street, which must strike anyone approaching from the west; but perhaps this arrangement was unavoidable, if the building was to be made rectangular and its east frontage kept parallel to that of the old Post Office. This latter point was naturally of great importance, as it does not require much prescience to foretell the not very distant necessity of still further room being required by the Post Office authorities, which will in all probability be obtained by raising the old building, now only two storeys in height. In this case a still further harmony between the old and the new buildings would naturally be attempted, and thus the parallelism of their chief frontages is a matter of some importance. It may be added that the new building has been constructed in accordance with the best known methods of rendering such erections fireproof, the floors of all the rooms beneath their boarding being laid on beds of concrete supported by iron girders. The utmost care has also been taken in the construction of the flues and chimneys, so that no woodwork comes in dangerous contact with heated brick or stone; and it is to be hoped that they have been so constructed as to their powers of carrying off the smoke, that there will be no necessity for the addition to the stacks of those multitudinous shapes

and sizes of metal chimney pots which disfigure the majority of the private and public buildings of our metropolis.

As to the appropriation of the different floors or parts of floors to the different departments of the Post Office, and the assignment of office rooms to various officials and their staffs, considerable modification is necessitated of the arrangements originally contemplated. This arises mainly from the enormous increase in the telegraphic business, which will require much more room to be assigned to it than was anticipated. Hence for the present the money-order and savings-bank business will be conducted in the separate buildings above mentioned, where it has hitherto been located, and the central hall of the new building, which is its chief internal feature, and which was intended mainly for these departments, will be converted into offices. The basement will contain the telegraph batteries and four steam engines, which will be employed in working the pneumatic tubes used for the purpose of sending written telegraphic messages to the sub-offices in the metropolitan districts. These tubes must not be confounded with those of the Pneumatic Dispatch Company, which were once, though no longer so, used by the Post Office for the transmission of letters, and were large enough to admit several persons into the receptacles which were used for letters and parcels. The present pneumatic tubes of the Post Office are only about 2½ in. in diameter, and are used for the purpose of transmitting telegrams received from various parts of the county to metropolitan sub-offices after they have been transcribed on small pieces of paper. Time is in reality thus saved and the multiplication of telegraphic instruments avoided. These tubes are called "carriers," or more familiarly "poguns," and some of our readers may lately have seen them in the process of being laid down in our streets. They are made of lead, which gives a more polished internal surface than iron, but they are enclosed in iron pipes by way of protective covering. The ground floor of the building will be appropriated to the use of the Postmaster-General and Accountant-General, with the necessary reception-rooms; the first floor to the secretaries and their staffs; while the third and fourth floors will be entirely devoted to telegraph business. The room thus gained in the old building will materially conduce to still further improvements in the method of conducting business, and the public may thus expect to derive an immediate benefit from the large sum expended on the new buildings.

STATUES AND PORTRAITS.

In the Court of Common Council, London, Mr. G. Shaw moved the following resolution respecting the pedestal for the statue of the late Prince Consort. The subject, on a recent occasion, led to some discussion as to site and cost:—

"That the resolution of the 2nd of May, 1872, 'referring it to the Improvement Committee to obtain a design for the pedestal of the statue of the late Prince Consort more suitable to the site, and considered with a special reference to the proportions of the statue, the cost of such pedestal not to exceed £2,000,' be rescinded, and that it be referred to the Improvement Committee to provide a suitable pedestal at an expense not exceeding £2,000." Mr. Edmenton had admitted that, by mistake on his part, he had induced the Court to carry the resolution in question. The committee did not recommend the pedestal before the Court for the adoption of the Court. It was exhibited simply for eliciting the opinion of the Court. He had no doubt if this motion were carried, the views of the Court would be carried out without any further trouble. Mr. Hartridge seconded the motion, which was put, and agreed to.

At the same meeting a letter was read from Mr. W. Lawrence, photographer to the Dublin Exhibition, for permission to photograph the portrait of Lord Cornwallis belonging to the Corporation. The communication was referred to the City Lands Committee, "to

take thereon such steps as they might think proper."

"Tis strange, indeed, that the Irish capital or Dublin Castle could not furnish a painting of Lord Cornwallis. Although severely censured by many for his severity in 1798 in Ireland, he has not received sufficient credit for his good qualities in other respects. The "Cornwallis Papers" are worthy of perusal—but, then, we are not politicians.

THE SOCIAL SCIENCE CONGRESS.

THE PUBLIC HEALTH.

In the late congress some valuable papers were read, and afterwards led to some discussion on the part of the members. In the Health Department Dr. Acland gave a sketch of what he considered was comprised in the idea of health. From this paper we give some extracts:—

The object of sanitary legislation, he said, in any country, is a great idea, an idea which many persons will suppose cannot be wisely handed over to the tender mercies of common councils or boards of guardians. While those of us in civilised countries cannot do without clothing, fire, and habitation, the happy savage—and it may be my misfortune to believe that there are such beings—requires only air, water, and food; still less what other things are required in civilised countries, and which I have put under three heads—highways, cleaning, and police. The fundamental basis of health, of public health, of national health, of comparative national health, I take to be a wise education. Dr. Acland then proceeded to refer, in illustration of his subject, to the constitution of hospitals, continuing—I wish now to present, in a hasty way, the fundamental conception of sickness, because, as the object of the health department of this association is to handle disease, and so promote health, we cannot help remembering that disease is a necessity as our world is constituted, and that we have to provide means for treatment of disease as well as for preservation of health. What is disease, and how is it to be studied? Having rapidly furnished replies to these questions, in the course of which a reference was made to the terrible diseases of leprosy and cholera, and the manner in which the latter was treated in India, and the reports made on the subject as regarded the spread of cholera, he said—Quite lately a curious document had been prepared by Dr. Simon, of the Privy Council, in which he raised an important question, whether cholera would come along new lines of communication which were being opened up between India and Europe. A man who believed that cholera always travelled along the line of human intercourse would say that it would. He (Dr. Acland) was not capable of passing judgment upon the question; but it was, at all events, a very proper and philosophic question to ask, and one which required investigation. He quoted the opinion of Dr. Cunningham (whose gigantic labours gave his conclusions much weight), that with the present imperfect data it was premature to decide in favour of any one theory regarding the localising of cholera; that the several existing theories might really involve partial truths, and that they only became incompatible with one another when insisted on as absolute and entire explanations. . . . Who are going to manage this country in future, people or despot? Are you going to make the people take care of themselves, or are you going to treat them like children, and in type of the worst feudal times? Now, I am a believer in feudal times and parental government; and what is the principle of sanitary legislation? The principle is to do for the people what they cannot do for themselves. That was a great answer to idle comments. You have to ascertain what the people cannot do. You are not to try to pry into their cottages. If they like to live in dirty cottages let them, but you are not to make it impossible for them to have clean ones; the fundamental laws should be to give a man fire, air, and water, and unadulterated food. What the poor working man cannot do the Government is bound to do for him. These are proper objects of legislation. Nothing is too minute for the attention of the legislator, but it must be based upon a principle. When Mr. Goschen, in the course of the last year or two, introduced a sanitary measure, the measure came in contact with the enormous question of local taxation, and the consequence was that his bill had to be withdrawn. Mr. Stansfeld said the act of 1861 was a rare combination of sagacity and impetuosity, introduced on three sides of a sheet of foolscap. As that act placed this principle before the legislature, that the care of the health should be in the hands of a first-class cabinet minister,

containing within the office all the elements requisite for supervising the whole health of the nation, he was stigmatised and taunted with taking a narrow view of the question, and when the bill was read a third time and passed in the House of Lords some of the newspapers actually did not notice it. I have drawn out the chief subjects which are comprised in great fundamental ideas, or of the subject concerning the inquiry of health. I have got 29 of them, and there is not one that could be properly taken out of this conception of legislation concerning national health. There are many questions we may ask with regard to hospitals. Is it possible to build a bad hospital now? Should a county hospital, because it is supported by voluntary contributions, be exempted from inspection? I have put down one which may not at first seem to have much connection with public and local government. I allude to reorganisation of charities. It seems to me impossible that we should go on for another quarter or half a century without dealing with this subject—without seeing that there is no waste of the energies and powers either of governments or individuals in caring for these. It needed care instead of continual squabbling, as they did in various towns, as to who was and who was not eligible for aid, and matters of that sort. He said that there must be a continuation of the powers of the State and of that of individuals upon this subject, or, in point of fact, they would come to a dead lock. That is my answer to the sharp criticism that we sometimes hear as to the impression of collecting in one central office what is called the care of destitution and the care of health. I say that the two subjects are inseparable, and that in the present state of civilisation it is necessary that, in some form or other, these two great departments of State should be united. I think that the act of 1872, which placed the administration of these matters in the hands of guardians and town councils, and divided the country into rural and urban districts, acted with great judgment in adopting that plan. It appears to me that the Government of Mr. Gladstone proceeded on the wise principle, that of waiting until they could construct a perfect theoretical system, and avail themselves of the existing institutions and habits of the country. In resting upon local self-government this vast subject, Mr. Gladstone followed the principle which has made England what it is, with all her faults, as unquestionably they exist, and with all her virtues, which unquestionably are great. He relied upon the principle which had made her people self-reliant and therefore capable. He allowed that he was dealing with a practical people, whose forefathers, sailing from this port, laid the foundations of the American Republic, gaining for their country a new world and new reputations, and this practical people, I have yet to learn, where they have duties assigned to them, and they are told calmly and plainly how they are to discharge them, will refuse to act up to their character as Englishmen. There is one thing, however, in the act which I for one should wish to see repealed. It is absolutely necessary that there should be attached to the office what are called scientific experts. A scientific expert is not necessarily a man who has succeeded in his profession, and wishes to be delivered from trouble and care of private practice in order to devote himself to the ease of a government salary. What is necessary is that, whoever our scientific experts may be, their decisions should be able to stand such a test as the opposition in a court of law of my friend Sir John Coleridge, and the evidence of such men as Letheby, Frankland, and Liebig. It is not enough to send down experts in the profession to lay down the law before the guardians; they have got to remember that the English people would resist a doubtful opinion in a court of law or on appeal. The point is very easily met. What is wanted is not that the local government office should pay experts large salaries, but that the services of the most eminent scientific men should be retained, and that they should be paid fees for their opinions. In this way you would be able to get the best opinions which the world could produce, and avoid any subsequent contest in a court of law. It is my belief that the Public Health Bill (and I have carefully abstained from having any communications with members of the Government upon the point, so that I can speak my own opinions) has conferred upon the Government central authority, and upon the very competent person who holds the chief position the power of dividing the country into such areas as in the several localities may be desirable, and to obtain the assistance of any number of experts to aid him and the local authorities in their honest and upright endeavours for the promotion of the national health. With regard to legislation upon it next session Dr. Acland said he would not take the responsibility of urging the Government to take further action next year. I earnestly desire there may be no public health bill in the next session, and

that the powers of the Government shall be given to the question of local taxation. My reason is perfectly plain. You cannot expect to treat this public health question with finality, and I do not think we are in a position in which any legislation upon this question can be final. Local taxation must be settled before you can complete your arrangements for the payment of your new sanitary officers, and even for assigning to them their proper duties. Another reason why I am anxious that no bill should be brought in next year (always remembering that our present position with regard to the question is tentative) is that we must not overwork our public men, and that we should give them our support while they patiently endeavour to solve those vast problems which we have committed to them. I would implore the association to support the Government until they see what are the effects of the existing laws, and until the local authorities throughout the country have had time to mature for a few months, when I hope both parties in the House of Commons will combine together to propose a permanent sanitary code and act of more consolidation. I appeal to any person whether it is possible to complete a work of that kind under pressure of a feeling of want of confidence. If you wait for completeness, you will simply put off from year to year doing that which can be done. Depend upon it, in all respects this country is in a progressive state. Unquestionably the fundamental questions which lie at the root of our institutions are not only now being discussed, but will have to be very considerably modified, if not in our own time, still in that of our children, and we may congratulate ourselves upon the admirable foresight of Mr. Hastings, who has provided, in this association, a means of performing that work. In conclusion, Dr. Acland pointed out that healthy minds were dependent on healthy bodies.

Some exception may reasonably be taken to a portion of Dr. Acland's address, in respect to certain views he holds on legislation and the public health. We may refer to them on a future occasion.

SUNDRY SANITARY PAPERS.

AMONG the papers already alluded to in the Health Department of the Social Science Congress, the following is a summary of a few of the principal ones bearing on the Sanitary question:—

A paper was read by Mr. Thos. Littleton, M.D., of London, on the "Mortality of Infants." This paper dealt chiefly with the vast number of infants who die annually from suffocation, either by bed-clothes or overlaying, and recommended the general adoption of the accacio, which is universally used in Italy with very beneficial results.

The next paper was one by Mr. H. Greenway, M.R.C.S., of Plymouth, on "A New Mode of Hospital Construction." He maintained that, as the walls of hospitals frequently became the means of perpetuating infection, through having absorbed particles of disease, germs originally harmless, but which afterwards underwent a change in their nature and effect, the wounds of patients were also affected by these same particles floating about. The remedy suggested for this was to do away with large palatial hospitals, and to place each patient in a separate wooden hut, to be used only for a few years. This would, however, be impracticable for large cities where space was a desideratum, and the general administration would be difficult. The reader's device was to erect buildings of any length, but of only two storeys high, to be so divided that each patient would have the enjoyment of his own supply of atmospheric air uncontaminated by exhalation from his neighbour, the supply of air to be constantly renewed, and the compartments being made of glass, no absorption of morbid product or of emanations which might eventually become injurious could take place, and by washing them with water they would ever retain their purity. Heat was also proposed to be conveyed by heated paraffin oil being circulated through small pipes (J. A. Coffey's patent apparatus), instead of by water.

Mr. W. Hope, V.C., next read a voluntary paper on "Some of the Eccentricities of Sanitary Legislation." The paper dealt with the conduct of the Government in throwing out the private bill in connection with the Birmingham sewage, being thrown out after it had been unanimously approved of by a select committee, and that being done through the exertions of Sir Charles Adderley and Sir Robert Peel, who were peculiarly interested in the matter. Mr. Hope stated that he had been requested to attend by the defunct Corporation of Birmingham, and to ask the Social Science Association what they intended doing.

Mr. C. Bulteel proposed, Dr. Stuart seconded, and the President supported a resolution, referring Mr. Hope's paper to the council of the association for their special consideration and action if they thought fit. This was carried.

A paper on "Ventilation in Ships," by Dr. Pearce, and one on "Vital Statistics," by Mr. Edward Vivian, were also read in this section.

Mr. W. S. Cooper read a paper on the "Most Effectual Means of Preserving Purity of Atmosphere." He said in a vitiated atmosphere food rapidly becomes tainted, water poisoned, and individuals sicken and die. It is a matter of vital importance that the sources of this poisoning should be attacked at once for the purpose of eradicating the evil. The fœtid vapours that supply the place of pure air in our large cities (especially London) are known to be products of decomposition, although there is some difference of opinion as to their exact nature. By arresting decomposition, through chemical agency, we should be rid of all products of decomposition and sewer gas. To preserve purity of atmosphere decomposition should be prevented in every possible direction in drains, on street surfaces, in cattle, vegetable, and meat markets, in urinals, stables, and in every place where decomposable matter is present. It is as practicable to systematically deodorise the main conduits as it is to scavenge and water the streets. The cost would be rather more than watering, and much less than scavenging. The different districts are already under supervision, the places that require constant attention are known, and a deodorising staff could be sent out regularly with deodorising materials, and preserve the London atmosphere from the pollution of sewer gas at a cost of £200,000 per annum. Besides the chloride of calcium preparation several odourless and harmless disinfectants may be used for the purpose. Volatile disinfectants should not be used, for instead of purifying the atmosphere they add to its impurities by charging the air with additional substances, thus defeating the end in view, which is to clarify the air and free it from all odours or particles. It is essential that the preservative agent should not be a source of danger in itself to ignorant people whose dwellings and the courts and alleys which lead to them require copious applications of the purifying principles. It must be borne in mind that the drenching rains of the past season have cleansed our sewers and streets in an unusual manner, and notwithstanding that relief the stinks of London have been intolerable; and probably a serious epidemic has been arrested by excessive rainfall.

A paper by Mr. P. H. Holland—"What Steps should be taken to guard against Sewage Poisoning?" and one by Mr. W. H. Michael, "On the Principles that should characterise the new Sanitary Bill," were read, and led to much discussion. Mr. Michael went in for superseding existing authorities and appointing a Minister of Public Health.

Mr. Christopher Bulteel, F.R.C.S., read a paper "On Some of the Provisions of the Public Health Act"; and Mr. Synnington read one "On the Method of Dealing with Sewage proposed by Mr. Strong, of Glasgow."

Papers by Mr. J. N. Stevens, M.R.C.S., Mr. T. Baker, and others, were also read, bearing upon the above subjects.

CLOSE OF THE CONGRESS.

On Wednesday, the 18th, Lord Napier presided at the concluding meeting of the members and associates, held in the Mechanics' Institution, Devonport.

A long report was read by Mr. Pears, the general secretary. In this document the council of the association stated that, though numerically the congress had been smaller than some of its predecessors, it yielded to none in the value of the papers that had been read and the general interest taken in its proceedings. Testimony was also borne to the admirable arrangements made by the local authorities and committees for the convenience and enjoyment of the association during its visit, and thanks were tendered to all who had contributed towards those ends. A review was then taken of the work transacted in the various sections, and it was announced that a member of the Spanish parliament, who had been present during the meeting of the association and had read a paper, had offered the sum of £300 to be awarded by the council to the writer of the best essay on the subject of establishing an international council to take cognisance of disputes between nations, with a view to prevent war.

Lord Napier having briefly expressed his own sense of obligation and that of the association for all the favours they had received, Mr. Hastings moved the adoption of the report, which motion being seconded by Mr. Freeland, and supported by Mr. Rooker, was carried unanimously.

The thanks of the association were tendered to

the mayors of Plymouth and Devonport, and others, through whose exertions the local arrangements had been carried out, on the motion of Mr. R. N. Fowler, M.P., seconded by Dr. Acland, who thought the services of those who had taken part in the various discussions ought also to be recognised, for it was, after all, upon their exertions that to a large extent the success of the meeting depended.

The various compliments contained in the resolution were suitably acknowledged by the mayors of Devonport and Plymouth.

Mr. Wm. Collier proposed a vote of thanks to Lord Napier, the president, which resolution Mr. E. Jenkins having seconded, and Mr. Joseph Payne supported, was enthusiastically carried.

In responding, Lord Napier expressed the great pleasure he had felt in presiding over an assembly which was occupied in discussing and endeavouring to solve social problems, and in carrying out social reforms. He dismissed the congress in the hope that most of those present would attend the meeting at Norwich next year.

The members and associates then dispersed to accompany the various excursions that had been arranged for, and to visit the dockyards and other public buildings thrown open specially for their inspection.

We may hereafter print one or two of the useful papers read in the "Municipal Law Section" of the congress, and in the Economy and Trade Department.

HOARDINGS AND POSTER NUISANCES.

In a recent issue of the *London Morning Advertiser* there appeared an article on the disfigurement of the thoroughfares caused by the covering of hoardings with unsightly "broad-sides." We print a portion of the remarks made by our contemporary:—

Our ancestors were contented with very simple announcements of their doings and the merits of the wares they might have to vend. Small bills, generally written, were affixed to the posts at the street corners, whence comes our term "poster"; and these were usually official, or related to the performances at the theatres. The announcement of a new play by the ingenious Mr. Shakespeare might be put forth on a scrap of paper 6 in. square, and to this no one could take exception. It is probable, also, that such Government announcements as related to traitors and such like matters figured at "Powles," as they used to call it, or at Temple-bar; and these things amused, without disfigurement. *Mais nous avons change tout cela.* The metropolis is actually sacrificed to the bill-sticker. Could the mediæval Willing or his rival the Champion Poster revisit the glimpses of the moon, they would stand aghast at the monster their humble art had created. London has become one vast boarding. Its finest buildings are dwarfed in importance by foregrounds of raw colour and fantastic characters. Every architectural prospect has its vanishing point, some intrusive crudeness, some demonstrative monstrosity, which ruins the effect. It has always been the complaint that St. Paul's could not be seen; as it is, the possibilities of any effective view are diminished a hundredfold by the interposition of the inevitable poster-nightmare, the bilious excrecence, hideous as the creation of indigestion. So with others of our metropolitan structures, certain to be affected by this form of horror in their immediate proximity. It is of little use that we have been seized with a mania for beautifying London, since we have at the same time fallen a prey to this modern element of disfiguration, which every year sets in with more and more severity. Mr. Ruskin has quitted his country in a fruitless search after quiet; it would have surprised us less had he been driven thence by the sheer horror of the insufferable hoarding. Not only is the gigantic poster a nuisance from an architectural point of view, but sensitive persons justly complain of it from its irritating effects on the nervous system. All are not affected alike; but there are those who shrink with positive pain from the eternal repetition of certain objects thrust

on their attention in season and out of season with "damnable iteration." There is nothing positively offensive in such an object as an ox in an impossible boat crossing a gutter, the sides whereof may be taken to represent two continents. But to encounter such a work of art always in all moods, at every turn, begets a sense of dislike amounting to nausea. So it is with the portrait of a supposed benefactor of his species who glowers from the walls as if he had been "added" to the "Chamber" at Baker-street, inspiring one with all the appropriate "horrors." All must have felt relief when the Two-headed Nightingale, with attendant giants and dwarfs, disappeared from the walls; but this has only made way for other haunting inflictions, the latest being that of a cut in connexion with some patent starch, representing a lady on fire in a ball-room, and all the guests escaping in terror. The craving for publicity induces each successive competitor for public favour to attempt something more startling, more crude, more horrifying, and more generally overwhelming. Gigantic letters, presenting masses of raw colour, but the pictorial designs in the roughest style of art, and worked up in the most startling tints, complete the atrocity. There are limits to the out-Heroding of Herod, and these, it is to be feared, have not yet been attained. Escape from this infliction there is none. It is rampant at the railway stations, and even creeps into and pervades the carriages. An attempt has been made to introduce it into the theatres, and one or two have had advertisement drop-acts, an idea which, happily, has not been received with much favour. Singularly enough, in spite of the universality of the system, posting has never been reduced to a science, and many of the largest advertisers lose their labour because their efforts are wholly empirical, and regulated by no fixed principles.

IN RE THE UNITED TRADES' ASSOCIATION.

At the last meeting of the above body, the chairman read a report from the Saddlers' Society concerning the lock-out in that trade. The support afforded to the trade in their struggle was stated to be most liberal. A donation of £5 was sent from Birmingham and other cities, and provincial trades also rendered assistance. The rope-makers' report stated their trade to be in a good condition. The paviors' delegates in the employ of the Corporation were reported to be on strike, numbering only sixteen men for the entire city. The paviors complained slightly of their grievances under the Corporate system of piece-work, asking to be placed on the time system. As usual, the Civic officials treated the request of the men as they have done all similar requests, with indifference and delay, and hence a strike was necessitated.

The United Trades' Association, so called, can scarcely yet be termed a united body. By keeping clear of political questions, and avoiding the resort to a strike or strikes, except as a last resource, the trades generally could do useful work for their order in a thorough amalgamation of their bodies. The building trades of Dublin do not seem ever to hang well together, consequently they suffer singly. There ought either to be a Dublin trades' council to represent all the trades, including the building branches, by properly-elected delegates; or the building trades should establish an amalgamated committee to represent their various branches, while locally, of course, every trade would still preserve their existing societies. Conferences and arbitrations could then be resorted to for settling trade disputes without the evil of a strike.

The master builders of London have established an association to represent their class, and it is becoming well organised. The master builders of Dublin should imitate their example, for there are more matters to claim the attention of such a society than the labour and wages question as affected by

strikes. Builders have their differences with architects, clients, and others, as well as workmen with builders; and it is only just that all classes should in these days be properly represented.

ST. CANICE'S, KILKENNY.

THE Select Vestry of St. Canice's, Kilkenny, have accepted the offer of the Right Hon. W. F. Tighe, to place a stained glass window in the west front of their lately restored cathedral. The window is to be supplied by Messrs. Holland and Holt, Warwick.

PEAT FUEL.

LAST week we intimated our belief that through the development of our peat resources, and its efficiency as a fuel for manufacturing purposes, the time is at hand when Ireland will take a position amongst the manufacturing countries of the world. We are unwilling, however, to rest content with indulging in commonplace platitudes respecting the dependence of manufacturing industry on a cheap and abundant supply of fuel, and we are sure our readers would care but little for a random prediction that when we have acquired the latter the former must follow, as a matter of course. The fact is, the transition from an agricultural to a manufacturing stage of industrial development has ever been a slow process, and we, therefore, feel bound to show that in the present case there is an unusually fortunate combination of circumstances to justify the belief we entertain. In the first place, it seems to us that there is no other fuel whose preparation is so peculiarly fitted to serve as the connecting link between these two stages of industrial progress. Being on the one hand, to some extent, of the nature of a manufacturing industry, it will tend to arouse the enterprise of the country: whilst, on the other, it is so closely connected with agricultural pursuits as to commend itself to a people who have hitherto had so little experience of any other species of industry. The second consideration which we would urge in justification of our belief is the peculiar fitness of peat for one species of manufacture; and as this has been brought home to our own minds by a careful study of the coal supplies of England, we think we cannot do better than lay before our readers some of the results of our investigation.

England consumes between seventy and eighty million tons of coals for manufacturing purposes, and about three-quarters of this is required for production of iron: we find also that the superiority of Swedish over English iron arises from the fuel with which it is prepared; the Swedish iron being prepared by the use of charcoal, whilst the sulphur in the coal prevents the English from preparing as good iron as the Swede.

Let us now trace the bearing of these facts on ourselves. Our supply of iron is practically unlimited, and has hitherto lain unworked for want of a supply of fuel. Our peat resources are greater than the English supply of coal, and by the use of charred peat we can produce a quality of iron equaling the best Swedish iron in the market. We are thus brought, not so much into competition with England as with Sweden; and being able to combine largeness of quantity with excellence of quality, our countrymen have placed before them the immediate prospect of becoming the greatest iron producers in the world.

The profitable conduct of works of this class must, of necessity, be largely dependant upon the successful preparation of the peat as fuel. In this respect we may, with confidence, anticipate very complete and satisfactory evidence. The commission which is now engaged in its investigation of the present mode of carrying on the manufacture of peat fuel will fully supply any information necessary for forming an accurate judgment on these details. We have the fact before us as to the Swedish iron being largely manufactured and finding a ready market at a price in advance of the English production, thus removing any doubts as to this branch of industry being of a profitable and satisfactory character. Aided by the energy of an active and industrious population, coupled with the supply of fuel and ironstone, both of good quality, Sweden has made enormous advances as a manufacturing country. In this country we possess these and even greater advantages, simply waiting for active development. We feel assured that the present movement is one which will be productive of advantages far in advance of our most sanguine expectations, and will be the introduction of a new era of commercial prosperity for Ireland.—*Farmers' Gazette.*

FOLEY'S MODEL OF GRATTAN.

THE model for the statue of Grattan has arrived in Dublin, and is at the Mansion House. It represents the great orator in his most characteristic attitude, or perhaps rather the attitude that painters and artists in Ireland were wont to present him. The right hand is raised, while with his left he clutches the collar of his coat. The artist's success in rendering the likeness of Grattan will be judged by different standards, but in the manipulation of the work Mr. Foley must be adjudged a similar merit as that which attaches to his statues of Goldsmith and Burke. When the work is completed and placed in position in College-green, a better estimate can be formed than by any view at present of the model.

CITY ITEMS.

THE following is reported amongst the proceedings of Committee No. 1, on Saturday:—

The law agent submitted the draft agreement in reference to the laying of asphalt in Henry-street. Subject to certain alterations, it was directed to be prepared for execution by the parties, and that the work should be at once proceeded with.

A deputation of the paviors on strike waited upon the committee, and detailed their grievances. After considerable discussion the matter was postponed for further consideration!

A communication was received from Mr. Colvil, on behalf of the trustees of Nelson's Pillar, consenting to the widening of the footpath on north and south of the pillar, on certain conditions. The matter was referred to the city engineer for his report.

THE LOCAL GOVERNMENT BOARD.

A REMARKABLE change has taken place this week in the constitution of one of our most important administrative departments. The Poor Law Commission has disappeared. The circulars from the Custom House will no longer bear the old familiar heading. A new *regime* exists, established under two Acts of Parliament: the one passed in 1871, the second in 1872, as the Local Government Act. Although the Poor Law Commission, however, vanishes as such, like Valentine Vausden from behind a curtain, it reappears in an altered garb. It has a new name, a new robe, and larger duties; but the actors are the same stock company. Mr. A. Power, Dr. J. McDonnell, and Mr. R. W. Bellew go off the stage—and come on again. Their department now includes also the Public Health and Local Government, with the care of both of which they are charged. It is not very clear, even from the Act of Parliament, what the extent of their powers will be, and it is our opinion that still further legislation will be necessary to define them. They are to have the title of the "Local Government Board," and are empowered to carry out the Sanitary Act of 1866, and the powers conferred on the Chief Secretary, by the Local Government Act of 1871, with respect to markets, fairs, and tolls, are transferred to the new Board, with increased jurisdiction. Section 124 of 3 and 4 Victoria, cap. 108, which relates to the lighting of boroughs, is amended by sec. 11 of the Local Government Board Act; and sec. 12 enacts that "All parts of acts which relate to the election of auditors, and to the audit of accounts by such auditors, in any town to which the provisions of the Local Government (Ireland) Act, 1871, relating to the audit of accounts apply, shall be and the same are hereby repealed." No very clear idea has been obtained, as we have said, of the limits of the new Board's action; but the intention was to devolve upon it functions heretofore divided between the Lord Lieutenant, the Privy Council, the Chief Secretary for Ireland, and the Poor Law Commissioners. The circumlocution of this quadruple Government was a serious embarrassment to the transaction of business, and it is to be hoped that this obstacle will now be removed. The Act is considered most interesting, however, as an admission of the

propriety of increasing the opportunities for a really local government as opposed to a stagnant centralization.—*Leinster Express*.

TO CORRESPONDENTS.

THE TENTER HOUSE.—This building was erected by Mr. Thomas Pleasants, a philanthropic citizen. It cost him £13,000, and was designed to enable the weavers of Dublin to "tenter" their cloth in all weathers.

OLD BRIDGE.—The Dominican Friars in this city are stated to have built this bridge over the Liffey in 1428, and to have charged a toll of one penny for carriages or beasts passing over it.

ARTIZAN.—If you have capacity you may stick the coveted letters at the tail of your name without hindrance.

AMATEUR.—Brickwork is mostly measured by the rod of 272 ft. super., one and a-half brick in thickness, but the custom varies in several places in Great Britain. In North and South Wales and in some of the western counties of England the standard perch is 18 ft. for brickwork as well as stone walls. In the north of England brick walls are measured by the yard. The rod measurement is the practice in London, and is becoming the general one. In Ireland the custom also varies. Any intelligent building operative will afford you information as to the variations that occur in the different cities in Ireland.

JACK PLANE.—Buy Atchley's, Laxton's, or Kelly's builders' price book, and you will find all the definitions and particulars. Possibly you could procure a copy to read at the Mechanics Institute.

A CITIZEN.—Read *Gilbert's History of Dublin* or history of matters belonging to Dublin, and you will learn what the historical associations are.

MAIN DRAINAGE.—We cannot say whether it is a Scotch or an English house that has been promised the contract for supplying the metal and other appliances. It may be that some great gun in our Town Council has been throwing out "feelers for a commission," and hence the report.

CALP.—There are several quarries in the county Dublin of this material. It is the common building stone of the county for walling purposes. Some descriptions are very hard, others again soft, which in exposure for some years crumbles away in thin scales, or drops of layer by layer.

PAVEMENT.—There are "scrimons in stones," but very little utterance in asphalt. It is rather a silent material, but our Corporate noise-mongers are determined to knock an echo out of it.

INFORMATION WANTED.—"Some particulars are required concerning the latter-day history of the Ancient Trade Guilds of Dublin. How far are they represented still, even in name, and do any records exist or books, and to what extent, in the possession of the Corporation or other bodies and representatives?"—H. C.

"A CONSTANT READER."—You have omitted to send your name and address. The half-timbered concrete houses described in our last issue are situated at Rathmines. We are sure that the architect, Mr. John Holmes, 10 William-street, will afford you any information you may require.

HOME AND FOREIGN NOTES.

The Diocesan Council of Meath have appointed Mr. R. B. Phillips as their architect for the diocese.

MARYBOROUGH PARISH CHURCH.—Considerable alterations and improvements are to be made in this church, from the plans of Mr. Banks, C.E.

The new church at Westport, County Mayo, just completed from the designs of Mr. T. N. Deane, was consecrated on Thursday by the Lord Bishop of Tuam. The builders were Messrs. Butler and Son, of this city.

At the thirty-sixth annual general meeting of the shareholders of the Royal Bank of Ireland, held on Wednesday, a dividend of 13 per cent. was declared. After paying this dividend, and writing £1,000 off the premises account, the sum of £3,000 will remain to be carried to the reserve fund. The chairman said the directors during the last year had reviewed the position of the whole staff, and made a considerable increase in several salaries.

At a meeting of the governors of the Limerick Lunatic Asylum on Tuesday, a serious charge was preferred by the High Sheriff and Alderman O'Callaghan, the visiting committee, against the staff of the institution. It was alleged that in December last a lunatic, named James Danford, died suddenly in a cold plunge bath, and in March another patient was found dead in his cell, and that no inquests were held in the cases. An inquiry respecting the charges will shortly be held.

KINGSTOWN POLICE COURT.—Two householders were summoned by the officials of the Town Commissioners for failing to connect their houses with a main drain, as required by the act. The magistrate said he had visited the premises in question since the case was last before him, and he felt sure if proper drains were not made that the places he inspected must become hotbeds of disease should an epidemic break out. Mr. Grundy, one of the defendants, urged that his house-drain was connected with an old and intermediate drain; but the magistrate said he had no option but to carry out the law, and therefore he ordered the connecting drains to be formed within fourteen days.

RATHDOWN UNION.—A special committee meeting of this board of guardians was held on Saturday at Loughlinstown—Sir G. Hodson, Bart., presiding—to consider the question of conveying the workhouse drainage to the sea. The committee inspected the workhouse premises, with the view of adopting measures for the effectual drainage thereof. A report was adopted to the effect that the guardians abandon the idea of running a main sewer to the sea, and, instead, it is proposed to erect tanks, to be emptied weekly, or oftener, if necessary; the sewage to be carted from the tanks and brought to the workhouse lands, and allowed to escape by irrigation.

DESIRABLE RESIDENCES.—The owners of the houses 25, 26, and 34 Castle-street were summoned by the sanitary authorities for having insufficient accommodation for their tenants. The premises were set in tenements, and the tenants, numbering over a dozen families, also appeared in court. Evidence was given by the police authorities and by Dr. Mapother of the abominable condition to which the basement storeys of the houses were reduced, and of the danger to which not merely the occupants were subjected, but which threatened the inhabitants of the neighbouring premises, and was so horribly offensive to passengers on the footway who walked over the iron grating above, that the public were sickened and disgusted when business took them into that locality. Some gentlemen in court confirmed this latter testimony. Mr. Ennis, who appeared for the prosecution, applied to have the two first-mentioned houses closed after a period of three weeks, and to remain closed against human habitation until certified to be fit for occupation. After some discussion, the cases were allowed to stand for a fortnight.

ACCELERATION OF THE POSTAL SERVICE BETWEEN LONDON AND SCOTLAND.—The Postmaster-General has just concluded an arrangement with the London and North-Western Railway Company, by which the delivery of letters posted in London up to six a.m. will be expedited more than three hours in Edinburgh and Glasgow and other important Scotch towns. This great improvement will be effected by the addition of a Scotch travelling post-office—with first, second, and third-class passenger carriages attached—to the Irish express leaving Euston Station at 7.15 a.m. This portion of the train will be detached at Crewe, and run through *via* Carlisle and the Caledonian system direct to Edinburgh and Glasgow, reaching Modern Athens at 5.45 p.m. and the commercial capital of Scotland at 6.0 p.m. Heretofore the Scotch mail leaving London at 7.30 a.m. has been timed to reach Edinburgh and Glasgow at 9.10 p.m. and 9.30 p.m. respectively, at which hour, for all practical purposes, the delivery of letters has been comparatively useless. By the new arrangement the arrival of London newspapers in the great Scottish towns will also be expedited nearly a couple of hours. This improved service, while maintaining the pre-eminent celebrity of the royal mail route, cannot fail to be considered a great boon by the commercial classes of the whole of the United Kingdom.

In Cashmere 100,000 persons are employed in the shawl manufacture. The weavers are all men, and most of the spinners women. The real Cashmere thread is made from the down, not the hair, of the Thibet goat. This down, or wool, is all carried to Cashmere for manufacture, the business being under such strict governmental control that no real wool can be sold, or smuggled into any other province of India. Fine shawls are made in other provinces and sold as genuine Cashmere, but are an inferior article. These shawls are of two kinds; one is made by weaving small pieces and sewing them together, the other by embroidering the pattern on a plain woven cloth. The weaving of a shawl of ordinary pattern occupies three weavers three months; the more elaborate ones from twelve to fifteen months.

THE BELLS OF EUROPE.—The present bells of Cologne Cathedral, which were cast as early as any others in the fifteenth century, weigh—one, 12,000 lbs., the other 22,400 lbs. The "Kaiserglocke," which will shortly be cast, will be the largest swinging bell in the world; for those at Peking and Moscow, which are larger, are fixed bells. The diameter on the lower rim will be 13 ft., the height being 17 ft., and weight 50,000 lbs. The following are the weights of some of the largest bells in Europe:—Vienna, 36,000 lbs.; St. Peter's (Rome), 38,000 lbs.; Notre Dame de Paris, 34,000 lbs.; "Big Ben," 32,340 lbs.; and Erfurt, 27,936 lbs. According to a German paper the Emperor has made a "munificent and truly Imperial gift" by sending twenty-two French guns from the Strasburg park to be molten into the "Kaiserglocke," which is to hang in the south campanile at Cologne. The weight of these guns is 500 cwt., valued at £3,740.

A SUBSTITUTE FOR COAL.—Great results are expected from some experiments which are being made by the Duke of Sutherland on the waste lands of Sutherlandshire. He is utilising surface peat by making it into composite fuel. The first attempt was made with a combination of sawdust and peat, which, being mixed by steam machinery, and then dried in cakes, was found to be excellent fuel, sixty of the cakes being equal to 1 cwt. of best Sunderland coal, while the cost is 25 per cent. less. The coal composites are even a greater success, thirty of these being set down as of the strength and value of sixty of the sawdust peats. If the cakes can be dried by artificial means—and there is no reason to doubt this—there will, we are told, soon be abundance of peat fuel in Scotland, and the successful working of the invention will greatly facilitate the reclamation of the waste lands.—*Builder.*

LAKE TAHOE is the wonder of California—though California, to be sure, has many wonders. This gem of lakes is the largest in the world at the same elevation, being from eight to ten thousand feet above the sea, and walled in by mountains which rise two or three thousand feet above the surface of its waters. These same waters have three distinct colours; near the shore pure emerald, farther out a deep and beautiful blue, and toward the centre of the lake an inky black. No purer water can be found anywhere. Lake Tahoe is thirty-five miles long and fifteen wide, and four varieties of trout sport in its waters—the silver, black, red, and cross-breeds. The mountains surrounding the lake are studded with pine and cedar, tamarack being the most attractive and graceful of the trees. An endless variety of shrubs and undergrowth, and flowers of varied colors and delicate and tiny shapes, carpet the mountain sides, or bespangle the meadow slopes near the water. The thermometer in the vicinity of this lake varies from fifty to eighty degrees, seventy being the average summer temperature.—*Harper's Weekly.*

POSTAL STATISTICS.—A document just issued from the Post Office gives some very interesting facts. From it it appears that the number of chargeable letters passing through the Post Office for delivery in the United Kingdom (not including sample and pattern packets) amounted to 29 for every person on an average—33 to each person in England, 35 in Scotland, and 13 in Ireland. The correspondence carried for public offices weighed nearly 14,000,000 ounces, the value of the postal service thus performed being £135,546. In addition to 917,000,000 of chargeable letters delivered in the United Kingdom, there were 75,000,000 of post cards carried for the public, 99,000,000 of newspapers, and 103,000,000 of book packets.

"A VISIT TO EPPS'S COCOA MANUFACTORY.—Through the kindness of Messrs. Epps, I recently had an opportunity of seeing the many complicated and varied processes the Cocoa bean passes through ere it is sold for public use, and, being both interested and highly pleased with what I saw during my visit to the manufactory, I thought a brief account of the Cocoa, and the way it is manufactured by Messrs. Epps, to fit it for a wholesome and nutritious beverage, might be of interest to the readers of *Land and Water*."—See article in *Land and Water*, October 14.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & CO., Homeopathic Chemists, London." Also, makers of Epps's Cacaoine, a thin refreshing beverage for evening use.

MANUFACTURE OF COCOA, CACAOINE, AND CHOCOLATE.—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—See article in Part 19 of *Cassell's Household Guide*.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

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The Irish Builder.

VOL. XIV.—No. 308.

The Irish Civil Service.



THE Irish Civil Service, its appointments and belongings, is a matter that concerns this country very much, and the commissioners now appointed to enquire into the whole working and management of that department should have been appointed many years since. It is an undeniable fact that our countrymen have neither been well paid nor well treated in the department, and, instead of having a fair share of the appointments, have for years, with slight exceptions, been playing second fiddle to officials belonging to the sister kingdom. Now we are not of those who would deny an appointment or oppose one made to either Englishmen, Scotchmen, or Welshmen. Ability and capacity should be everywhere considered and appreciated. Irishmen hold English appointments across the channel, but they are sparse indeed, and have only been acquired through superior capacity and attainments. At the head of the Civil Service Department of Ireland appointments have been made to men, not alone for their undoubted ability for their office, but the undoubted influence of their patrons. The remuneration that foreigners have received, and are receiving, furnishes a strange contrast with that received by Irishmen holding scarcely less inferior offices, where real work has to be done and not mere overseeing. We do not like to act an invidious part by naming persons; our object is only to draw attention to the fact, that others may draw their conclusions. On the other hand, we do not see why Englishmen and Irishmen alike should not receive an equal remuneration for their labour in the Irish Civil Service, as that received by their brethren in England. It is an incontrovertible fact that the salaries paid thirty years ago remain still the same in the Irish department, notwithstanding that the cost of living has doubled, and house-rents greatly increased. It is no wonder that discontent should be shown, and that the Government were bound at last to consent to an enquiry into all the bearings. Whether the Irish service is over-manned, is another question which will have to be pronounced upon. No doubt there are changes necessary, but the surplus hands will be found, we think, to belong more to the directing class than the working, though it is possible the "superiors" in failing to do the work devolving upon them has necessitated an increase in the "inferiors." If a thinning in the ranks should take place, we trust that the Government will afford a liberal compensation to those whose future services will be dispensed with. There is too much reason to believe that many of the hard workers will not fare over well when the levelling down process begins. What is needed now is a thorough and painstaking enquiry, so that no grievance will escape proper examination, and we will be very happy to afford to stranger and native

alike a fair ventilation for any wrong that may remain unattended to throughout the course of this pending enquiry. The Irish Civil Service absorbs, or ought to absorb, a large amount of native talent and ability, and its existence on a properly-organised basis is necessary, considering that this country lacks the large fields of industrial employment common to the sister kingdom, which provides other avenues for its middle classes.

Year after year every department in this kingdom of any consequence, as far as it was possible, has been centralised in London, our departments here, so-called, degenerating into mere agencies; and even in this matter, in the majority of instances, the agents entrusted with the transfer business were not native. There are Englishmen of long standing in Dublin connected with the public service, against whom no charges can be made on the score of honour or creditable administration, but it is not of these we complain or of English appointments *per se*, but of the systematic filling up of the service year after year with mere amateurs with neither talent nor experience, and whose only testimonials were the good words and influence of their friends. It is time that this system of pitch-fork promotion into the public service should cease, and sterling and practical ability become recognised. We desire to see equitable treatment for Irishmen to that afforded to those not belonging to this country, and we will not have a word to say in favour of an Irishman who will be found unfitted for his place, or not worth his salary. We will watch the issue of this Government enquiry with interest; and if it is a thorough and exhaustive one, it cannot fail to be productive of important benefits to the future of this country.

DEATH AND DISEASE IN DUBLIN.

In the last Quarterly Summary of the Weekly Returns of Births and Deaths in Dublin, including the suburban districts of Rathmines, Donnybrook, Blackrock, and Kingstown, we have additional evidence of what the neglect of sanitary precautions by our Corporate authorities have helped to accomplish. A great proportion of the deaths are clearly attributable to the uncleanness that characterises Dublin under present municipal rule. The number of deaths registered in the Dublin Registration District during the quarter ending September 28, amounted to 1,784—896 males and 888 females,—affording an annual ratio of 1 in 44, or 23 in every 1,000 of the population. The mortality, there is every reason to believe, was even greater, and it may be understood that the above are unrevised numbers.

DEATHS AND DISEASES IN DUBLIN.

The number of deaths registered in that portion of the city north of the Liffey was 670, or 25 in every 1,000 of the population; and the number in that portion south of the river was 869, affording an annual mortality of 25 in every 1,000 of the population. In the suburbs of Rathmines, Donnybrook, Blackrock, and Kingstown the number of deaths registered was 245, being equal to an annual death rate of 15 in every 1,000 of the population. The deaths registered in Belfast during the quarter represent an annual ratio of 20 in every 1,000 of the population; in Cork the ratio represented by the number of deaths registered was 25 per 1,000; in Limerick it was 18 in every 1,000; in Londonderry 15 per 1,000; in Waterford 18 per 1,000; in Galway 20 per 1,000; and in Sligo 16 in every 1,000 of the population. The number of deaths registered in London during the same period was 17,660—a number equal to an annual mortality of

21 in every 1,000 of the inhabitants; in Glasgow the number was 3,115, equal to 25 in every 1,000; and in Edinburgh 1,018, affording an annual death rate of 20 in every 1,000 of the estimated population. Of the 1,784 deaths registered in the Dublin District during the quarter, 291 occurred in the various hospitals, prisons, and lunatic asylums; 107 in the North Dublin Union Workhouse, and 147 in the South Dublin Union Workhouse; making a total for public institutions of 545, or 31 per cent. of the total deaths.

Small-pox caused 155 deaths, or 1 in 11.5 of the total deaths. In the corresponding quarter of last year, 20 deaths were referred to small-pox, and in the preceding quarter of this year, 582 persons died from this disease. In the Cork Registration District 160 deaths resulted from small-pox, against 527 in the preceding quarter. Six deaths from small-pox occurred in Belfast, and 4 in Londonderry. In the Dublin Registration District fifty-three persons fell victims to fever; viz., 9 to typhus, 26 to typhoid or enteric, and 18 to simple continued fever. Measles proved fatal in 74 instances, scarlet fever in 36, croup in 22; diphtheria in 6, and whooping cough in 5. Eighty-nine deaths resulted from diarrhoea. Bronchitis was the cause of 127 deaths, or 1 in 14 of the total deaths; and pneumonia or inflammation of the lungs of 23. One hundred and twenty deaths, or 1 in 14.9 of all the deaths registered were ascribed to convulsions. Phthisis proved fatal in 248 instances, affording a ratio of 1 to every 7.2 of the total deaths. Mesenteric disease caused 41 deaths, hydrocephalus, or water on the brain, 46, and scrofula, 13. Forty-one deaths were referred to cancer. Heart disease was the cause of 76 deaths; aneurism of 4, pericarditis, or inflammation of the heart's covering of 4; liver disease of 17; nephria, or Bright's disease, of 5. Thirty-two deaths were attributed to apoplexy, 37 to paralysis, and 10 to epilepsy. Thirty-seven persons died from accidental causes, viz., 12 from fractures and contusions, 10 from drowning, 9 from burns or scalds, 3 from wounds, and 3 otherwise. Two of the deaths registered were homicidal, and 3 suicidal.

Of the 1,784 persons whose deaths were registered during the quarter, 806 or 45.2 per cent. had not reached their twentieth year—of this number 597, or 33.5 per cent. of the total were under 5 years old; 144 or 8.1 per cent. were 5 and under 15; and 65 or 3.6 per cent. were 15 and under 20.—328 or 18.4 per cent. were between 20 and 40;—291 or 16.3 per cent. between 40 and 60;—299 or 16.8 per cent. between 60 and 80;—and 58 or 3.2 per cent. had attained their eightieth year. In 2 instances, or .1 per cent., the ages were not specified. The deaths of 9 persons stated to have been nonagenarians and that of one woman returned as 102 years old, were registered.

In the Quarterly Return for the whole of Ireland, alluded to in our last issue, we find that the north and south of Dublin stand out prominently among the ill-fated spots in the kingdom which have suffered severely for the sins of its local rulers. In Dublin North No. 1 District, 106 deaths occurred from small-pox in one quarter, and the district registrar is of opinion "that a place of recovery for persons coming out of hospital before they go back to their families, would be most useful, as then the danger of spreading the disease by contagion would be considerably less." Our Corporate authorities and Board of Health thought otherwise when they voted a "Convalescent Home" was not needed, after they had previously agreed that one should be erected. In Dublin North No. 2 District, small-pox carried off 24, but this does not represent the number who died extern to the district, where the first were attacked with the disease. There were 191 cases attended to from the dispensary, all suffering from the small-pox. Measles was also very prevalent in the district, being 225 cases, and 154 cases of fever. In North City No. 3, there were 65 cases of small-pox. In several of the suburban districts, fever, small-pox, and measles were also prevalent; and the district registrars, in more than one instance, regret the want of a convalescent hospital. Throughout a few of the towns in Wicklow cases are reported of deaths where patients caught the disease in Dublin. The

cases of death in the North Dublin Workhouse are also numerous. In the South Dublin District the number of deaths during the quarter from small-pox amounted to 179, or nearly one-third of the whole death rate; South City No. 2, there were 52 deaths from small-pox; in No. 3 District, 50 cases of deaths; and in No. 4 South City District, 51 deaths from small-pox. In the suburban districts of the south side as well as the north there were numerous cases of fever, measles, and small-pox. We have no hesitation in saying that two-thirds of these deaths resulted from want of due sanitary precautions and gross neglect on the part of our city and suburban authorities—foul lanes and alleys, foul water-courses and wells, foul back yards and surroundings, foul dwellings within, impure water in places, no proper house-to-house visitations on the part of sanitary officials and relieving officers, and, finally, the want of proper hospital accommodation.

NEW SCHOOL IN KILKENNY.

THE foundation of a new school has been laid a few days ago in the parish of St. John. The schoolhouse will have an entrance porch, with two rooms, 60 ft. by 30 ft., with an open roof. In the construction of this school, though of small dimensions, we hear that attention will be paid in view of the health of the pupils. The architect is Mr. Robertson, and the builder Mr. James Connell, and it is intended to accommodate the children of the Catholic population of the district.

VISIT OF THE "JUNIORS" TO CHRIST CHURCH.

ON Saturday last the members of the "Architectural Association of Ireland" visited the works in progress at Christ Church Cathedral, and were received (in the absence of the architect, G. E. Street, Esq.) by Mr. John Dooling, the efficient clerk of works. A collection of objects of interest found in various parts of the building was first inspected; these have been jealously preserved by Mr. Dooling, who has had them arranged in temporary glass-cases in his office. A number of ancient tiles with incised patterns have been found—some in a good state of preservation, and of original and striking designs. A few encaustic tiles have also been turned up. A curious piece of apparently the flat portion of a stag's antler covered on both sides with runic knots rudely scratched on the surface, which was found at a depth of 15 ft., excited a great deal of attention. Specimens of ancient stained glass, pottery, &c., were also examined by the members. The drawings of new Synod Hall, and details of the mouldings, &c., were exhibited to the members by Mr. Dooling. The visitors, after viewing the cut stone in preparation, next proceeded to visit the Cathedral. The manner in which the arches of nave arcade have been shored up and new piers built was carefully examined. Mr. Dooling explained at length the means adopted by which the restoration is being carried out; some of the old stones being built in the new work, in order to prove the fidelity with which the old details are being copied. The new baptistery on St. Michael's-hill—a perfect gem of its kind—was much appreciated, also the careful manner in which the old work of west gable is being cut away. Mr. Dooling then conducted the members to the termination of the original church, the foundations of which have been discovered, and which it is determined to rebuild. The crypt was then visited, which has few objects of interest, except the excellent manner in which it has been drained, and the arches repaired and underpinned. The members were then shewn the remains of the former baptistery, which were found built into the walls, and have been temporarily re-erected in the churchyard. The members having cordially thanked Mr. Dooling for his kindness and courtesy, then left the Cathedral, well pleased with their visit.

WANTED—A TESTIMONIAL.

THERE are some men who want to get into office, and there are other men who want to get out. The men who want to get in are desperately in earnest, but those who want to get out, some suspicious-minded people say they're "only trying it on." The comical side of the business is that those who want to resign will not be allowed to carry out their suicidal policy. The world indeed has come, or is coming, to a strange pass. Here, for instance, is a public character, not a hundred miles from Dublin, who has elevated himself; and, feeling that he was occupying too giddy a position, determined upon letting himself down to something near his natural level. He can't do it, however, and that for many reasons. Hops and peas and scarlet runners and several parasitical plants require support—if they have not a pole or a stick to cling to it is impossible for them to rise; and in the human as well as the vegetable kingdom some men cannot climb unless they are allowed to make a pole or a ladder of the backs of others, and submit their backs in turn by way of compliment to the master of the ceremonies. Perhaps we are rambling away from our subject. There is still a public testimonial wanted. A purse, a tea service, or a telescope might obviate the necessity of erecting a public statue to the "coming man" until public feeling could be pumped up, and the subscription list opened. Supposing, however, the friends of the great Phoula Phooka determined upon erecting a statue—a living impersonification of their idol,—where can a suitable spot be found? There is an ogre or black-a-moor facing the Senate House, and both sides of the bridge under which the Classic Puddledock flows are occupied or bespoken. The Admiral's Pillar is in the way in the middle of the Mall, Hoggin's-green has an equestrian statue, and the giant obelisk to the great Fabius of the Peninsular War would dwarf any bronzed abortion erected in its immediate vicinity. Eureka! There is one spot undreamed of. Near to the historic shores of Mud Island, washed by the Classic Tolka, there is a piece of slob-land, which the Corporation of the twentieth century will convert into a people's park. There could not be a more meet spot on which to erect a testimonial to any public man who kicked up a dust during his life, and returned to dust at its close. ARGUS.

THE LATE BUILDING STRIKE.

THE partial disruptions that took place subsequent to the settlement of the general strike in London are now at an end. The agreements come to between the master builders and the operatives, we fear, will not be a lasting one. The workmen are not satisfied that they have not obtained the full terms of their several trade memorials, and in closing the struggle for the present season they have given the public to understand that they will probably next season renew their demands for the "nine hours and ninepence." By their late contest the workmen have gained some concessions, and a shortening of the hours of labour, but in working the 52½ hours per week at 8½d. they are no gainers in a financial point of view. They are of course at liberty to work overtime, but judging them by their expressions they seem to be adverse to the system of overtime, no matter whether they obtain time and a quarter or time and a-half for it after the first two hours. The slight reduction in the hours of work will hardly necessitate the employment of additional hands, one of the objects sought for by the building operatives. There will be still an amount of surplus labour at times in the market, which must be found an outlet in other directions.

Besides the late movement of the building operatives, there are at present several labour and wages movements afoot in London and the provinces on the part of various trades, seeking for a rise of wages and a reduction in the hours of labour. The great

increase in the cost of living and in house-rents is one of the principal causes which has led to the present disruptions in trade. So long as the workmen's demands are fair, and supported by cogent reasons, they are entitled to every consideration; and we would be one of the last who would deny the right of workmen to fix a fair valuation upon their labour. Unfortunately there are too many of our skilled and unskilled classes unemployed, and, when employed, underpaid.

THE YOUNG ARCHITECTS OF IRELAND.

WE would direct the attention of our readers to the proceedings at the opening meeting of the new Architectural Association, reported in this issue. We trust that its career will be long-lived, and its labours productive of benefits to the members of the profession and the public. It has commenced its mission under fair circumstances, and nothing is needed but energy and industry on the part of its members to render it eminently successful. More anon.

THE PEAT FUEL QUESTION.

MR. JOHN SPROULE has communicated a long letter to the *Times* on the above question. The letter is somewhat instructive and interesting, but we dissent from the conclusions drawn by the writer, and may at some opportune occasion disprove some of his statements at length. He holds a belief, which he maintains by a rather fallacious line of argument, that the peat of Ireland can never be utilised to any available extent, except for local purposes. A dry summer, he thinks, is absolutely necessary to make turf fit for fuel; and, as relates compression as a mode of preparing the peat for fuel, he asserts that a peat-compressing engine set up in Ireland would consume more fuel in a week than it would make in a fortnight. Probably those descriptions of machines, of which Mr. Sproule has a recollection during his Irish experience, would consume even more than they produced, but he must have a very limited range of vision when he cannot see, (or pretends he cannot see), that better forms of machines can be constructed, and better methods and arrangements provided for accomplishing what is sought. Failures in the past is no proof that we must fail always. Every invention has been improved upon, and, as the want exists, the power to supply it will be forthcoming in good time. We would have expected that Mr. Sproule would have spoken in a less desponding spirit of the subject on which he writes to the *Times*. No doubt his letter will please many parties in the sister kingdom who have an interest in throwing not only cold water on the peat and Irish coal question, but upon other cognate subjects tending to develop the industrial and mineral resources of this country. Humid as our climate sometimes is throughout parts of the year, yet if the rainfall of Ireland was double its present quantity, our peat deposits could be utilised to a very large and available extent. The poor, with their usual modes of drying and saving turf for their domestic uses, are, of course, at the mercy of the weather, but it is quite possible to carry on the preparation of turf for fuel independent of the weather. Although we cannot prepare our "sods" of turf in the same manner as we burn our bricks, yet we can make use of the fine weather when it does exist, and supply other means of drying when it does not. A good method of compression is a drying process, and we have not the least doubt yet that a cheap and expeditious mode of preparing peat for manufacturing purposes will be discovered. Dr. Lardner once ridiculed the idea of a steam vessel ever being able to cross the Atlantic, and Mr. Sproule may yet live, like Dr. Lardner, to laugh at his earlier fallacies concerning the Irish peat question.

THE STATE OF BRITISH COMMERCE.

In the last monthly Board of Trade returns we are furnished with a number of statistics which go to prove that trade has not at all been affected as yet by the late disruptions in trade owing to strikes or similar restrictions. All or nearly all branches of trade appear to be not only in a flourishing but in an expanding condition. A reaction, however, may follow at any moment; and in respect to this country, independent of these returns, there is great room for improvement in many branches. There are some who think that a panic looms, but in the absence of this calamity we are bound to take things as we find them. The most striking feature of our export trade is the absence of any extraordinary demand for coals from abroad, a fact which shows that the large advance in the price of coal is not owing to this cause. Last month the exports of coal were absolutely less in quantity than in September of last year, though the value had more than doubled. In the nine months of this year, however, we exported 10,097,523 tons, as against 9,350,730 tons in the corresponding period last year, which showed an increase over the year 1870. Russia, Germany, France, and India have taken diminished quantities; but Italy, Sweden, and Denmark have increased their demand.

The slackened activity apprehended in the cotton districts scarcely seems to be indicated by the official returns. Less raw cotton has been brought to this country than last year, but the quantity is greater than in the corresponding three-quarters of 1870; whilst the value of the exports of the manufactured article increased from £5,096,373 in September, 1871, to £5,389,415 last month; and in the nine months from £43,118,276 last year to £47,466,390 this year. The foreign demand for iron shows no signs of decline. Not less than 2,602,883 tons have been exported this year, as against 2,381,916 last year, which was an increase upon the previous corresponding period. The largest increase has been in pig-iron, Germany, Holland, and the United States having taken unusually large quantities. Last month's exports were slightly below those of September, 1871. There has been an appreciable decline in the imports of wool; and for this month there is also a diminution in the exports of woollen manufactured articles, but the three-quarters are valued at £25,815,400, or £5,000,000 more than last year. Less raw silk has been imported, but an augmented quantity of the manufactured article has been sent abroad. The exports of linen manufactures also show an increase. As regards other articles of export, hardware and cutlery increased by about a fourth; copper declined for the month, but for the three quarters it compared favorably with those of last year; whilst wearing apparel was taken abroad in largely increased quantities. In the nine months just expired 293,869 firearms (small) have been sent abroad by our gun manufacturers, and 15,500,000 lbs. of powder. In the same period 2,557 horses have been embarked, of which about one-half were shipped for France.

Corn stands at the head of our imports in regard to augmented supply. Last month nearly 4,500,000 cwt. of foreign wheat was landed; and in the nine months 27,397,905 cwt. There has been a diminution in the arrival of coffee for home consumption; but an increase of tea, of which 96,428,619 lbs. have been imported this year for home consumption—the total imports of this article being 128,272,072 lbs. The value of the foreign wine imported has been £5,789,690, or an increase of 10 per cent. The sugar imports for the month were double those of September last year; but for the nine months the increase was not proportionately great. It is noticeable that there is a considerable decline in the imports of hemp and flax.

The imports exhibit a steady improvement; but it is in the exports of British and Irish produce and manufactures that the greatest

advance is shown. The aggregate figures for the month and for the nine months are as follows:—

Imports of Foreign and Colonial Produce, &c.

	For September.	For the Nine Months.
In 1870 ..	£25,908,308	£214,138,847
In 1871 ..	25,307,538	242,942,238
In 1872 ..	26,639,421	261,310,336

The increase, as compared with September, 1871, is nearly 5 per cent.

Exports of British and Irish Produce and Manufactures.

	For September.	For the Nine Months.
In 1870 ..	£17,090,823	£148,734,191
In 1871 ..	19,857,971	165,577,979
In 1872 ..	23,148,026	190,314,662

The increase, as compared with September, 1871, is upwards of 16½ per cent.

The foreign drain of bullion and specie, which has resulted in the successive advances in the rate of discount, is scarcely apparent upon the face of the official returns. Last month the total amount of gold and silver exported was only £1,907,243, whilst in September last year it was £3,004,625, and £975,879 in September, 1870. For the past nine months, however, not less than £22,384,938 of gold and silver has been exported, as against £19,895,193 in the corresponding period last year, and £12,576,872 in 1870. Of the bullion and specie exported this year, Germany has taken £6,027,265, added to the £6,108,825 received in the past three-quarters of last year; and Egypt, £5,375,357. Our imports of gold and silver this year have been £22,237,280, as against £26,869,858 last year.

CORRESPONDENCE.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—In No. 282 of the IRISH BUILDER, dated 15th September, 1871, when alluding to the supineness and carelessness of carrying out the sanitary condition, &c., of the provincial towns, you say—"In Portarlinton little seems to be done to abate nuisances, although a sanitary officer was lately elected. A great majority of inspectors of nuisances and relieving officers are in ignorance of their precise duties, and this seems to be the case in Portarlinton." It is now more than twelve months since the foregoing remarks were made; yet, strange to say, very little means have been taken to abate the nuisance, by severage or otherwise, although very few towns need looking after its sewerage, &c., more than Portarlinton, with its overcrowded filthy lanes and stagnant water. It is hoped your remarks will induce the local authorities to look to the sanitary state of the sewerage of the town before the return of warm weather. When the epidemic visited Ireland, few towns of the same number of inhabitants suffered more than Portarlinton.

A NEW INHABITANT.

CANON KINGSLEY ON PUBLIC HEALTH.

In an address delivered at the Midland and Birmingham Institute on the 7th inst., the Rev. Canon Kingsley, gave utterance to the following remarks:—

"I want, for instance, here on your lectures on physiology, which, as I shall say hereafter, seem to me to be just what is wanted, a superstructure built upon a school of health and disease, not for medical men merely, but for the people of every rank. We spend vast energies in saving alive those who, looking at them from a merely physical point of view, are most fit to die. Everything which tends to make it more easy to live, every sanitary reform, prevention of pestilence, medical discovery, amelioration of climate, drainage of soil, improvement of dwelling-houses, workhouses, prisons, every reformatory school, every hospital, every cure of drunkenness, every influence in short which has, so I am told, increased the average length of life in these islands since the first establishment of life insurance offices 150 years ago, by nearly one-third

—every influence of this kind I say saves persons alive who would otherwise have died, and the great majority of these persons will be those of the least resisting power—the weaklier thus preserved to produce in their turn a weaklier progeny. Do I say that we ought not to save them if we can? God forbid! The weakling through disease, whether infant or adult, is a British citizen and no more responsible for its own weakness than for its own existence. Society—that is, in plain English, you and I—and our ancestors are responsible for both, and we must fulfil the duty and keep it in life, and if we can heal, strengthen, develop to the utmost, and make the best of that which fate and our own deservings have given us to deal with. I do not speak to-night of higher motives still—motives which to every minister of religion must be paramount and awful. I speak merely of physical and social motives, such as appeal to the conscience of every man—the instinct which bids every human-hearted man or woman to save life, alleviate pain, give pleasure for all alike, like Him who causes His sun to shine on the evil and on the good, and His rain to fall on the just and on the unjust. But it is palpable that in doing so we must year by year preserve a large percentage of weakly persons, who marrying freely in their own class must produce weakly children, and they weaklier children still. Must, did I say? There are those who are of opinion—and I, after watching and comparing the histories of many families, indeed of every one with which I have come in contact for now five-and-thirty years in town and country, fear that their opinion is but too well founded on fact—that in the majority of cases in all classes whatsoever the children are not equal to their parents, or they, again, to theirs, and that this degrading process goes on most surely and most rapidly in our large towns, and in proportion to the antiquity of those towns, and, therefore, in proportion to the number of generations during which the degrading influence has been at work. This and cognate dangers have been felt more and more deeply as the years have rolled on by students of human society. Theories upon theories have been put on paper, especially in France, which deserve high praise for their ingenuity, less for their morality, and, I fear, still less for their common sense, for your theorist in his closet is certain to ignore as inconvenient to the construction of his Utopia certain of those broad facts of human nature which any active parish priest, medical man, or poor-law guardian has to face, whether inconvenient or not, every day of his life. English society and English human nature are what they have become by the indirect influences of long ages, and we can no more reconstruct the one than we can change the other. We can no more mend men by theories than we can by coercion, which, by the bye, almost all these theories look to longingly as their final hope and mainstay. We must teach men to mend their own matters by their own reason and their own free will. We must teach them that they are the arbiters of their own destinies, and to a fearfully great degree of their children's destinies after them. Teach them not merely that they ought to be free, but that they are free, whether they know it or not, for good and evil, and we must do that in this case by teaching them sound practical science, the science of physiology as applied to health. It is still a question whether science has fully discovered those laws of hereditary health the disregard of which causes so many marriages disastrous to generations yet unborn; but much valuable light has been thrown on this most mysterious and most important subject during the last two years. Nay, our light—and I thank God for it—is widening and deepening month by month, and I doubt not that in a generation or two more than enough will be known to be thrown into the shape of practicable and probable rules, and that if not a public opinion, yet at least, what is more useful far, a widespread private opinion, will grow up, especially among educated women, which will prevent many a tragedy and save many a life. But as to the laws of personal health, enough, and more than enough, is known already to be applied safely and easily by any adult, however unlearned, to the preservation not only of his own health, but that of his children—the value of healthy habitations, of personal cleanliness, of pure air, pure water, of various kinds of food, as each tends to make bone, fat, or muscle, provided only ladies and gentlemen know that the food be unadulterated—the value of various kinds of clothing, of physical exercise, of a free and equal development of the brain powers, without undue overstrain in any one direction—in one word, the method of producing, as far as possible, the *mentem sanam in corpore sano*, the wonderful and blessed effects of such obedience to these laws of nature, which are nought but the good will of God expressed in facts, and their wonderful and blessed tendency to eliminate the germs of hereditary disease and to actually regenerate the human system."

ARCHITECTURAL ASSOCIATION OF IRELAND.

THE PRESIDENT'S INAUGURAL ADDRESS.

My first duty on this, the opening night of the Architectural Association of Ireland, is to thank you for the great honor you have done me in electing me your first President. I assure you it was one most unexpected on my part, as you could have found so many other members of the profession who, by experience and talent, could have filled the position infinitely better than I can ever hope to do. However, gentlemen, I can only say that no effort of mine shall be wanting to realize to the full the anticipations that I am sure have been formed by all of you as to the success of the Association. I must crave your kind indulgence at this my maiden effort, and ask you to remember that I have been working all my life; and that in the few remarks I make bold to address to you, I do not profess to say anything new, or that has not in all likelihood been said, and better said, previously. I hope, however, that a recital of my experience may be of use to the younger members of the profession.

The Association has now a large number of members, and I am happy to say that it includes many Fellows of the Royal Institute of the Architects of Ireland. There is no reason whatever why the interests of the two bodies should not be the same. The Institute has already on several occasions given practical proof of its anxiety for the welfare of the younger members of the profession by the organization of students' classes, and its efforts to form a museum and library.

You are all well aware of the difficulties of establishing a new association such as that we inaugurate to-night. It is an association for the promotion of practical education and art-knowledge, and is one that cannot fail to produce great advantages. It will be necessary for its members to devote all their energies to accomplish the objects proposed; and one of the principal portions of the work, in my opinion, is that opportunity of mutual improvement and exchange of thought which it affords, for they should remember they must rely principally upon themselves, and therefore it is of the utmost consequence that the junior members of the Association should, in their discussions upon subjects treated of at their meetings, never let pass an opportunity of gaining information and going heartily into the subject brought forward in papers or discussions; they should not forget that they meet in a friendly way, and no feeling of fear or delicacy should interfere with their investigating thoroughly the matter in hand. The several classes are well selected, both in design and construction, and have been chosen from a great variety proposed by the members themselves. I would urge on the junior members the necessity of reading papers at the meetings, feeling sure that many of them can, if they will only try, produce papers that will do credit to themselves and to the Association. The sketches in the Class of Design will be most useful; finished drawings are not required, but the spirit of design, which will afford good ground for discussion in connection with them. The papers to be read by the senior members are very hopeful signs of the success of the Association, for, no matter what your efforts might be, unless you have those of experience and superior training to direct you, they must either fall very far short of the result desired, or you lose your time altogether. In no other profession, I believe, is a guiding hand more necessary than in ours; and this immediately brings us to the all-important and ever-recurring question of art-education. This education ought to be based on one grand principle, and if it be, our work will be full of life and spirit, and our progress great. The main effort of the student must be, and ought to be, devoted to the acquirement of knowledge in accordance with this general principle.

By learning to make truth the foundation of your education, you may hope in time to be able to design: truth is absolutely necessary

to it, and no originality can assist a design without this one grand element; once depart from it, and you get into troubled waters. As written recently by an eminent architect, "It is truth only in every line and every detail which can ever make great architecture."

A more extensive course of study than is generally given is necessary for the architectural student. It is too much the habit now-a-days for a student to start too early in practice for himself; it often happens that he begins immediately on being out of his articles, as if the three or five years spent in the principal's office is all that is necessary. This is but a small portion of his education, even when supplemented by all the exertion of which he is capable. I know many pupils work very hard in this way, but I fear that with others it is only the mere routine of the office that constitutes their art-education.

The preparation for the profession is one of our weakest points, and in this respect France and other continental countries have the greatest advantage over us. It is necessary that a good general and scientific education, and a fair knowledge of drawing, should be learned at school; this should include a general knowledge of perspective, its principles and practice, and good training in freehand drawing. When you have entered on your duties as pupils you will find you are in the right way to become artists not only in name, but also in reality; and you will more readily work your way up in the office, and will the sooner be entrusted with responsibility. Then a knowledge of construction and the uses of materials should be your next care; this will give you a great confidence in your office work, because you shall then understand what you are doing, and there will be no hesitation in any constructional matter.

You should lose no opportunity of acquiring a thorough knowledge of all the trades; this is absolutely necessary for the making of your working drawings. When some new ideas are well and clearly laid before workmen, you find it difficult to get them to realise them, it being too much their habit to endeavour to do things their own way. How can you then possibly expect they should understand them if they are imperfectly sent from your office, much less hope they will follow you with confidence or respect? Without this knowledge your client will not have that confidence in you which is necessary; while the builder, who is really anxious to have the benefit of your assistance, and to follow your plans, so often finds that in matters under his own province you are at fault, that your influence is weakened. Were the educational defect removed, this state of things could not exist, and the aid of the architect would more generally be sought. The public would know their interests were safe in your hands; they would feel that technical knowledge and artistic taste were employed in their behalf, and they would unreservedly place themselves in your hands, and the cause of art and the public would be served in the end. The necessity for this is very apparent in our own country, where the position of an architect is very little understood, and good architecture, I fear, very little appreciated. The student should ever remember that a liberal education ought to be the ground-work of his profession, architecture being the real foundation of the fine arts, and should be the guiding spirit to them.

It is of the greatest consequences that a thorough knowledge of our history should be known, for the architecture of a country is intimately connected with its history, and the contemplation of the one brings forcibly before our minds the beauties and peculiarities of the other. And here I may mention the great fund of study which the ancient buildings of Europe afford the student. In our own country we have many examples of every period, although they are not so extensive or so elaborate as those in England or on the continent. They afford most interesting studies to the student, and the details are of a distinctive character that

marks them at once as national. I would, therefore, suggest that you begin at home, and let your tastes be formed there. I know no more interesting study for the junior members than a day's, or a week's, or a month's sketching at some of our fine old ruins, and I trust it may be my good fortune to join the members of the Association in their journeys through Ireland on the occasion of inspecting some of those splendid monuments of the piety and art-knowledge of our ancestors. We owe a deep debt of gratitude to those who like Petrie and others drew our attention to those splendid monuments erected by our forefathers. I do not know a better way for a student to learn the rudiments of real architecture than by carefully sketching and measuring on the spot those remains, particularly noting the mouldings and construction; and this is reckoned of such importance that I believe nearly all the art societies offer special prizes for the purpose. I am happy to see one included in the prize list of this Association. Not only the details should be sketched; the plan should be well studied, the purpose of the building, and how it has answered that purpose, should be carefully investigated. In this investigation I would suggest that no one style be adhered to, as beauty and good may be found in all. The remains of Athens and Rome have their admirers, and those of the Middle Ages are affectionately regarded by numbers. As for my part I believe it is quite possible to cull from all without losing any of the feeling or beauty which either possesses, not indeed to attempt to produce a mixed style of architecture, which I consider most undesirable. Ground your necessities of the age either on Gothic or Classic works, treat them with originality, and you will have a sufficiently new style, if you combine in your work those truths which they so beautifully express. I see no reason whatever why we, though loving the pointed arch, should neglect the use of the round, and in our Gothic architecture we may well introduce that simplicity and repose which is to be seen in some Classic work; this has been very successfully achieved by the Italian architects, who introduce into their works some of the distinctive features of the Classic, and with unity and harmony. Even in the same windows they introduced the two kinds of arches, the inner arch being often semi-circular, while the outer one was pointed, this gave a great appearance of strength, and the effect is exceedingly good. We must remember ever that literature has great influence on architecture, and is intimately associated with it.

I am very happy to believe that great strides are being made in the direction of educating the public mind, and that exhibitions of art are being more and more appreciated.

The pupil should early learn to sketch, and sketch well. Sketching is a power in the hands of an architect. It is impossible for you to be able readily to put together your ideas unless you sketch well; it gives you the greatest facility in grouping your buildings, and even planning them. You have the means of storing up in your minds every good idea, detail and group. This power of sketching combined with a thorough knowledge of perspective is of the greatest benefit to yourselves in your future practice; it enables you to take inconstantly those works which may pass before you on all occasions. If you have this power you will be able to get through a much greater amount of work than would be possible for you without it, no matter how well versed you may be in everything else that relates to your profession. When you have acquired this power of sketching well and freely, you can then take up some works, and measure and draw them carefully; by this means you will be doing more to understand their spirit and feel those principles of truth and reason which they contain. It is only when you have carefully gone through this work and understand thoroughly their plans, sections, and eleva-

tions, and their construction, that you can catch their ideas, which ideas once thoroughly impressed on your minds can never be completely effaced. You can use them as your own, without feeling that you are mere copyists. These very ideas will arise in your minds, and will be to you of the greatest assistance when you most require them. Then the power that sketching gives you in educating your eyes and your tastes, when you have the mind filled with the good things which you have already seen and sketched, it will not be possible for you to be satisfied yourselves, or to satisfy others, with what is unreal or bad. It will give you an easy path over many difficulties, and the fears that may perhaps arise when you have planned an original group will soon disappear, if your minds are stored with those ideas which have been formed long before in your sketching tours. You will then avoid starting with a sham. This is a very serious evil, and one against which you will have carefully to guard—this endeavour to appear what we are not. It is of the utmost dishonesty, and yet appears to be almost universally practised; the worst feature of it is, that it precludes us from the use of really good materials, and how disappointing in the end it is. These shams are practised almost everywhere and in almost every place, and yet everyone appears to know it is so. How often do we see that plastering—very good in itself, if properly applied—is utterly destroyed when made to imitate stone? This is so generally adopted that it is most difficult to get even the workmen to do this class of work without their putting the stone lines upon it. It would be annoying, if it were not such a serious subject, to hear the explanations given and the defence offered by them on this subject. Then we have metal and wood painted to imitate stone and marble, and how often are we allowed to have the simple colours applied to our work? No! we must have our wood painted to imitate oak, or maple, or such-like, forgetting all the time how very beautiful the natural colour of the wood is, or how much better and more beautiful the simple colours would be. This we must never fail to oppose with all our powers, no matter from what quarter it proceeds; it is a combination of extravagance and bad taste. It removes us altogether from what we should have in view. Then in the matter of representing marble, do we not see it every day. It is sad to find that all this occurs amongst us at the same time that real materials and rich colours are so little used; we are very far behind in this respect. The public appears to be devoid of true feeling on this most important point; you should therefore do all in your power to awaken a love for truth, and beauty, and colour, in your architecture. You certainly have many opportunities of doing so in using the brick, granites, limestones, sandstones, and marbles, which may now be easily obtained in this country, and which in every respect are such admirable materials. By using your materials thus you will tend to educate the eye and give strength and interest to your buildings; you may then hope to see love for the picturesque and beautiful become more general, and regularity and plainness shall not be considered the only beauty.

Sketching and measuring also lead on to the closer examination of these works you take up, and give you a power of thinking for yourselves otherwise very hard to attain; you will find out the points of them that please you most, and shall be enabled to mark carefully the treatment adopted for different works, and how the various difficulties were overcome; and, though last not least, it will give you a thorough knowledge and power to use the materials in their best and most natural manner. You cannot love those buildings too much, nor is there any fear you may become copyists if you approach them in a proper spirit, determined to educate yourselves by them, not to select a piece of them for a particular work. It is impossible for a man who loves his art well not to cultivate it, and derive pleasure from its practice,

which will be utterly impossible to a mere copyist. The study of those works will also tend to tone down that spirit which would perhaps sometimes tempt you to do queer things, in order to indulge in what is termed "originality." That which is natural will produce sufficient originality. In fact, to my mind, if you make use of your wants properly and naturally you shall always produce that originality which is desirable; truth in planning and in construction will always produce as much of it as is necessary to make our architecture picturesque and beautiful. It is the absence of truth in our architecture coupled with the want of art-education that produces the thoroughly uninteresting character of so very many of our buildings. That which is actually bad and inconvenient is adopted, more particularly in our dwellings, because the public mind cannot realize the fact that truth should govern our architecture; that spirit of doing what has been already, though very badly done, appears yet to govern the masses, and they dread anything in the way of real art in architecture.

Then whim must be avoided; that spirit of singularity which is occasionally visible,—that restless, uneasy striving after effect which marks conceit or disregard of truth. This uneasy spirit generally arises from ignorance in treating the materials we have in hand, or the neglect of the study of those models we have been speaking of, but generally in that absence of truth which is the real foundation of good design. You should approach each work in its true spirit, endeavouring to meet each case on its own special merits, making the design as natural and as suitable as possible.

You should above all avoid laziness in design; you must quit that spirit of mere imitation which your ease would sometimes prompt. You should blush to copy or to make use of any of the works you may see in your principal's office; you should imitate what you find there in order that you also may one day become original. The practice of copying and making up a design of another's works, and trying to deceive yourselves thereby that you have designed a building, is a most dishonourable practice, and it is utterly opposed to the true spirit of art. Once you rest satisfied with mere copying in this respect, you are lost to the spirit of the true artist, and you cannot take any pleasure in your profession. The true architect is always contriving, and never rests satisfied until he is convinced that he has realized the best effect possible. He goes on, ever improving on the past, till, when old age comes on, he feels himself young still in the pursuit of art, and there will be no fear that his work will become uninteresting to him. The ever-changing, ever-grappling with the work will be to him a constant source of pleasure, and he has his own reward in contemplating the life-like creations of his fancy—than which I know no greater pleasure. You have many opportunities for variety in your practice, for although sameness in general appearance is too generally sought for, yet in very few cases does one client wish to have that which has been already adopted by another. If you go into each work with spirit, it will prevent poverty in design, and produce that originality which we should all look for.

It is most essential that architecture should hold a prominent place in our public schools and universities, for is it not sad to find that in many cases the first idea a pupil gets of that which is to be his profession is in the office in which he is articulated, and that he oftentimes takes a pencil in his hand for the first time when he enters the office as a pupil? I hope the day is not far distant when professorships of architecture will be established in all our colleges and universities, and thus architecture and the fine arts will form part of general education for all classes.

In England we find many opportunities for art-study open to the student, not only in the colleges and universities, but in the Royal Academy and the magnificent collections at South Kensington and elsewhere. I believe in only one university or college in

Ireland does a chair of Architecturo exist; this is a very great want, and one that should not be allowed to exist; but the architects of the country must agitate, when perhaps attention will be paid to their wants. In the face of those discouraging facts, it is the duty of the younger members of the profession to be diligent and industrious, and shew thereby that, had they the means prescribed above, they would avail themselves of them. I believe, notwithstanding all the drawbacks, if a student is industrious he has all the necessary means open to him for a good art-education, if he will only supplement the information he receives from his principal by his own exertions in the workshop, on the building, or sketching tour; and pupils had better realise this fact as soon as possible—that architecture is an art not to be learned easily or slightly, and the sooner they put their shoulder to the wheel the better. If pupils will not educate themselves, or at least receive the education afforded by their opportunities voluntarily, then the sooner we have examinations for admission to the ranks of the profession the better. Let the Institute establish an examination, the passing through which will be recognised as a necessary qualification for the profession. I am afraid in many cases the position of the profession must suffer, unless compulsory education be established; outsiders will come into the profession—men without sufficient education. Even in this age, the position of an architect is not understood; the difference between an architect and a builder is not yet sufficiently defined. It will be said, and truly, that you cannot teach a man to design—that it is a gift; but it is a power assisted very much by education and training, and it is only just to the profession at large that this education and training should be possessed by all those ambitions to join its ranks, and thereby put it on a level with other professions. If the want of any regular training for the architect is so apparent, what shall I say of the system adopted at our schools of art? I believe a considerable number of pupils have learned to draw in them, and I feel certain they deserve a large amount of credit for what they have done; but there is, I fear, a great absence of investigation in the education provided; the effort appears to be more to realise an elaborate drawing. We want spirit and life in drawing of the different forms, not a painfully over-studied drawing. Then I fear also the pupils do not sufficiently understand what they are copying, and a large amount of interest is removed from their work.

The study of painting, sculpture, and drawing form most important parts of an architect's education, and it will be for the members of the Association to shew by their co-operation and diligence their appreciation of this fact, when, I have no doubt, the Royal Hibernian Academy will be happy to afford all the assistance in its power to members who should seek admission to its halls.

Gentlemen, you will perhaps say this is very hard work to go through, and you will probably ask what is the reward for all this. I would say in reply that you are about to become members of a most honourable profession. It is an ancient profession, notwithstanding the efforts of those who try to prove that it did not exist in the middle ages, but that each workman designed his own part and depended on his devices. The examination of any of those buildings will at once convince you of the absurdity of such a statement, even if we had not actual evidence of the fact. It is an intellectual profession, for, though we know cases unfortunately that would prove the reverse, they are, I am happy to say, the exceptions, and the high standard of Vitruvius is that aimed at I am sure by those who approach it as they ought. It is also a profession that can confer the greatest honour on its members, for I believe no matter under what discouraging circumstances you begin, if you only work diligently you shall win your way, you shall gain the respect and esteem of others, and even though you should fail you shall have the reward of

your own consciences that you traversed the right path.

And here I should perhaps say a word on competitions—that most vexed question. I will at once admit that I am a great admirer of the principle. I admit that in a large number of cases they are managed badly, and often unfairly; but still the principle is a noble one. It affords many an opportunity of distinguishing themselves early in life. Competitions also train the mind, and give an immense amount of practice. I hope it may soon be arranged that a system of competition just to all parties will be introduced, when, I have no doubt, the members of the profession will be ready to enter the lists, and thereby the cause of art greatly elevated.

In conclusion, I would again impress on the members the great necessity that exists for labouring hard for the success of the Association by the reading of papers. No matter how well founded on correct principles the Association may be, it is impossible for it to be successful unless you are active and industrious. Let not carelessness and indifference be allowed to creep into it, but rather let us be up and doing; let us lead the way, and shew by our lives that we are worthy of following in the footsteps of our ancestors; let us shew by our earnestness and industry in the pursuit of art that we can stamp on our buildings the life and feeling which their works even now retain.

I have, on the part of the Association, to thank you, gentlemen, who have honoured us by your presence here this evening, and I accept it as a proof of your warm sympathy with its efforts; and, my brother members of the Association, for the honour you have done me—an honour which I feel deeply,—I beg again to thank you.

THE CONVALESCENT HOME AND THE CORPORATION.

We have been consistent and strenuous opponents to every form of jobbery and wasteful expenditure of the public moneys, but in the case of erecting a Convalescent Home, we have raised our voice in its favour from the commencement. To prevent disease and save human life is a matter that calls for immediate attention, and the money that is economically spent in such direction is well expended. On the other hand, the scandalous conduct of the Corporation of Dublin for upwards of a year, in totally ignoring their first duties, and playing fast and loose with the lives of our citizens, calls for the extremest censure. Week after week the matter has been adjourned, played with, reconsidered, again shelved, voted as not needed, and again dragged back into public notice. A Nemesis has been following on the heels, dogging the footsteps, scaring the consciences of the chronic tricksters who have let our people die in the throes of an epidemic, stricken down with cholera, choke l with pestilence, stretched on their deathbeds in filth, and shovelled into pauper graves like dogs and rotten sheep, unshrived and unprayed for by minister or man. When the danger passed over, the wretched charlatans on Cork-hill congratulated the city on the decrease of the epidemic, and voted that the Convalescent Home was not needed. Time will tell. The unremoved accumulations of filth that fester in this city, awaiting for the warm weather to transform them into hot-beds of disease, will prove whether a Convalescent Home is needed or not. We have not patience to quietly read through the wretched vapourings that characterise the proceedings in the Corporation, in excuse and in justification of their neglect. Any man who valued his public or private character would wash his hands completely out of any part he, either

directly or indirectly, took in opposing the establishment of a Convalescent Home for the poor of Dublin. Where there is no shame there is little honour, and where honour and self-respect are absent in a public council-room the gentlemanly element must be far distant. Do the incapables who usurp the places of better men in the Town Council need another indignation meeting in Dublin to shame them into action? We would be inclined to advocate such a meeting, only that we are conscious no shame would be felt by those who ought to feel it under such circumstances. A clear public duty has been shirked, and now an attempt is being made to swallow up the charitable bequest of a private gentleman in erecting an hospital that the Corporation is empowered to provide. Whatever cost it might be to erect such a Home, its existence in such a city as ours, which is suffering under such chronic neglect, would be amply compensated by its usefulness in times of danger. At any moment we are liable to the revisit of an epidemic in Dublin, and will continue to be so while the Corporation is composed of its present wretched and rotten materials.

CIVIC LYRICS.—No. XXIII.

THE ALDERMAN'S LAMENT.

Farewell, farewell, a fond farewell, to cosy Civic treats
Provided for by "sundry" sums not named in balance-sheets.
Sir Darby Doyle, of all our guests, could make the table roar,
And still he lives to tell his tale of "dying on the floor."

We've Aldermen and older men, with T.C.s to their name;
They're still engaged in climbing up the rugged hill of fame.
By hook or crook there's little left for anglers who, of yore,
Have fished, and failed to get a bite, when "dying on the floor."

Some men there are among us still who have not lived in vain,
And some who 'scaped the convict's gyves have worn the Civic Chain;
While others live to turn their coats, cut twenty years before,
To suit the fashion of the times, in "dying on the floor."

Ah, politics don't always pay, no matter how expert
The gamester may be who has walked this Irish bit of earth.
The promised land is far ahead that teems with golden store;
But ere it's reached, there's sure to be some "dying on the floor."

Farewell, farewell, a long farewell, to cliques and committees;
These Governmental auditors will let nobody sneeze.
Our game is up, there's no escape by back or private door;
We'll be kicked out alive at last for "dying on the floor."

CIVIS.

AUTHOR'S NOTE.—The native reader hardly needs to be informed what "dying upon the floor" of the House means. Civic as well as parliamentary worthies for long years have practised the pastime with effect; but neither in "defence of the liberties of their country nor the rights of their fellow-citizens" have one of these actors felt a single hour's pain, save only when he missed a pull at the public purse.

OPENING MEETING OF THE NEW ARCHITECTURAL ASSOCIATION OF IRELAND.

THE opening meeting of the above Association took place on Thursday evening, the 3rd inst., under most favourable circumstances. The chair was filled by the first President of the Association,

J. J. O'CALLAGHAN, Esq., F.R.I.A.I.

There was a very large attendance of members and of gentlemen invited to take part in the inaugural proceedings. We print the names of those we more particularly noted:—James H. Owen, M.A., P.R.I.A.I.; J. W. Mackey, J.P. (Lord Mayor elect); Thomas Drew, R.H.A.; J. F. Fuller, F.R.I.B.A.; William Mitchell, F.R.I.A.I.; J. E. Rogers, R.H.A.; G. C. Henderson, A.R.I.A.I.; C. Geoghegan, F.R.I.A.I.; J. Rawson Carroll, F.R.I.A.I.; C. H. Brien, A.R.I.A.I.; Joseph Maguire, C.E.; James Bell, C.E.; James Dillon, John Holmes, D. J. Freeman, E. S. O'Callaghan, H. B. S. Montgomery, Henry Wilmot, F. P. Barnes, R. B. Phillips, A. J. Mayne, John Dooling, H. McManus, R. S. Swan, John Longfield, C.E.; Dr. A. Taylor,

Dr. Frazer, Dr. Porter, J. H. Mulcahy, R.H.A.; W. Doolin, John L. Robinson, E. Clarke, O. E. Heffernan, R. Johnston, Henry Brett, jun.; Dr. D. B. Dunne, W. P. Ryan, Wm. Butler, J. W. Knox, J. Robinson, J. J. O'Reilly, J. E. Wilson, R. D. O'Brien, D. Newman, W. O'Halloran, T. Holbrook, R. C. Millar, F. Nolan, C. Longfield, W. Davis, D. Freeman, F. Stokes, J. H. Longfield, A. E. Murray, W. G. Fennell, J. Briggs, E. Banks, C.E.; J. O'D. Corr, Peter Roe (IRISH BUILDER), R. H. Roe.

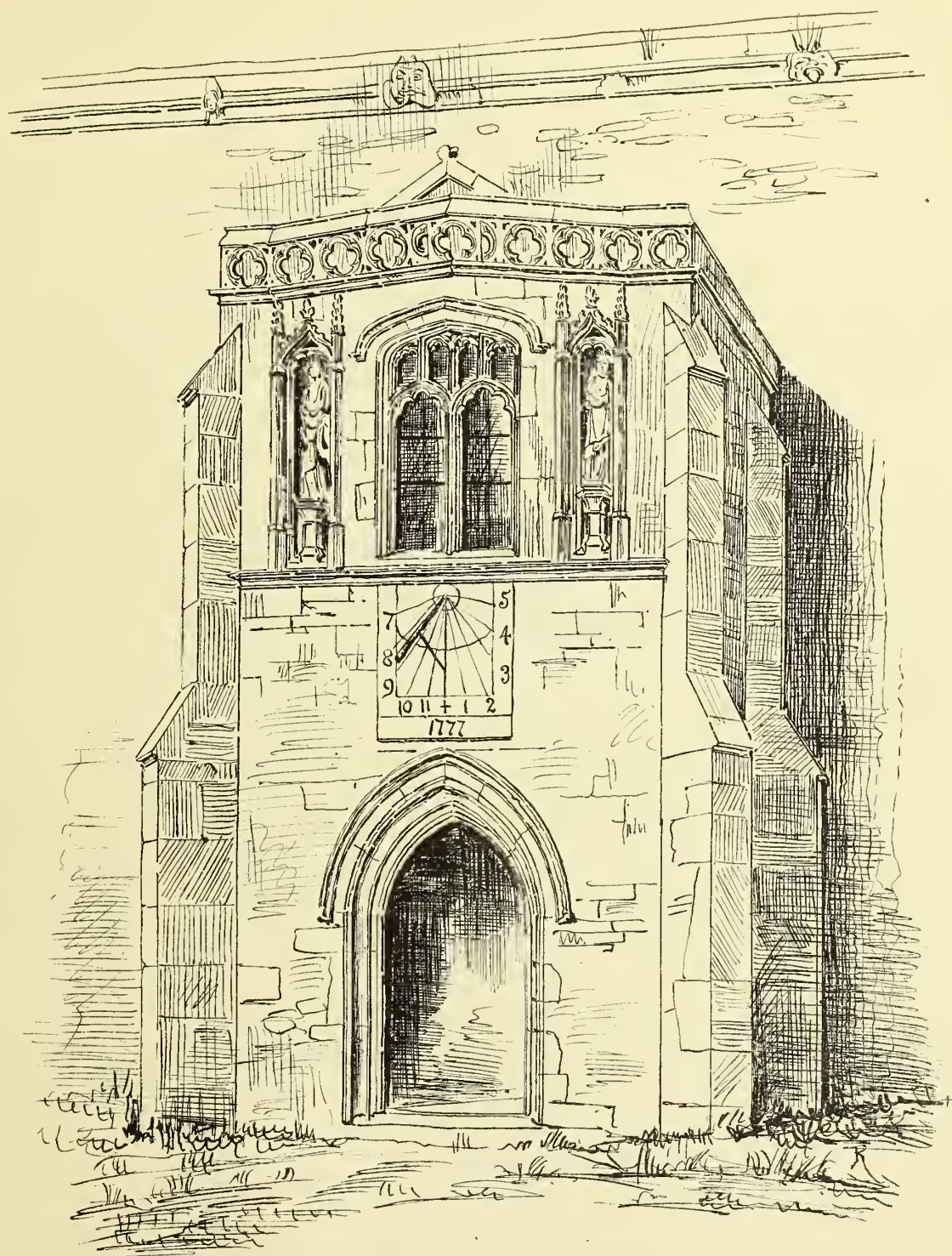
The minutes of preliminary meeting were read by J. L. Robinson (hon. sec.), and confirmed.

Letters of apology were read from Jonathan Pim, Esq., M.P.; G. Wilkinson, Dr. W. E. Steele, B. B. Stoney, C.E.; L. Waldron, Lieut.-Col. Adamson, C. G. Doran, R. Irwin, &c.

Mr. J. H. Longfield read the report of the committee, as follows:—

REPORT.

In entering on this the first session of the Architectural Association of Ireland—which, it is to be hoped, will be one of activity and usefulness,—we, the committee, have the honour to report that the movement has received up to the present every promise of its future success. We owe much to the kind interest evinced on its behalf by the Royal Institute of the Architects of Ireland, whose president and honorary secretary have taken the greatest interest in its formation, feeling that every movement of the kind for study and improvement must originate from that class which it will be most likely to benefit. The objects of the Association may be briefly enumerated—to promote friendly intercourse between those connected with the profession, by the discussion of subjects bearing on architecture as an art and science, by the formation of classes of design and construction, and by visiting together works of importance during their progress. It would also be our endeavour to encourage the practice of sketching and free-hand drawing, in which branch architectural students in this country are much behind their contemporaries in London and elsewhere, and which is of such great necessity for laying our ideas in a comprehensible manner before the public, whose taste on matters connected with architecture is daily becoming so enlightened, and its appreciation of all that is beautiful in form and elegant in design so universal, that it is absolutely necessary that those who may be entrusted with the designing and superintendence of buildings, &c., should bring to the task no ordinary amount of taste and ability. Similar associations to that which we inaugurate this evening have been founded in several of the large cities of the kingdom. That of London has for several years been carrying on a great work; it has classes for design, construction, professional practice, and also for water-colour drawing and drawing from the round and living model. Works in progress are visited on Saturday afternoons during the session. Excursions, extending over a week, are made to certain districts; the last, through Northamptonshire, under the able guidance of Mr. George E. Sharpe, was a great success, and was accompanied by some members of our Association. On the subject of these excursions and their uses, Mr. Drew has kindly promised to read us a paper at our next meeting. Our syllabus for the Class of Design shews a goodly array of subjects, and we hope to exhibit at our opening meeting next session some of the fruits of our labours. The designs are unrestricted as to style, so that a great diversity of ideas and arrangement may be expected. We would impress earnestly on those connected with the profession the great advantages likely to accrue from the foundation of such a movement as the present, which is really one of vital importance to us, if we are to keep pace with the time and not be left behind. In this Association the routine work of an office might be supplemented by a regular course of study, which the classes are instituted for



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the purpose of affording. Architecture is a subject so wide in its scope, so much bound up with everything that affects the public and domestic life, that one can hardly set bounds to its influence. How different are the feelings called up by the buildings of various styles? The church itself impresses the mind with a feeling of reverence and devotion by the grandeur of its proportions and the richness and appropriateness of its decorations. The age of "baldness" is happily passing away, and on all sides there is a greater desire for beauty in buildings devoted to sacred purposes; and who can walk in our streets and not be impressed with the amount of architectural skill displayed, and what diversity of treatment and originality of conception is to be encountered at every step? how many new forms and ideas adapted to the growing wants of an increasing population? There is no doubt that much of what seems new in style has for its motive an idea taken from some ancient building. As in old times the constructor and designer were more frequently identified than now, the works of antiquity very generally afford an example of fitness of decoration most worthy of close study; and where can we have models superior to the antiquities of Ireland, full of richness in breadth, grouping, and beauty of detail? Perhaps ere long we may be enabled, through the munificence of some of our countrymen interested in the antiquities of their country, to offer prizes in our Association for some special subjects that need being well drawn, with a view to publication. The churches of Templemahoe, Kilmalkedar, and Ardfer, drawn by Mr. Arthur Hill, of Cork, are the kind of architectural monographs of which our antiquities are in such need, carefully measured and drawn, and, aided by photography, they leave nothing to be desired, and are thoroughly explanatory. Holyrood Abbey, by Mr. Samuel Close, of Belfast, is also well worthy of every praise that can be bestowed on it, and will be a lasting memorial of the interest taken by that gentleman in the antiquities of Ireland. In conclusion, let us hope that the Association will be encouraged in its work, not only by the members of the profession in Dublin, but also of the country generally, that we may, by many accessions to our ranks, succeed in placing it on a firm footing among the scientific and artistic bodies of Dublin.

The president then proceeded with the delivery of his inaugural address (which will be found on another page), and was warmly applauded during its delivery.

The following were proposed as members of the Association:—John McCurdy, C.E.; J. Holmes, W. K. Parry, J. F. Todd, W. Fennell, H. Brett, jun.; J. H. Brett, Wm. Davis, E. Banks, G. Mossop, Thomas Hardy, C.E.; G. C. Henderson, and R. D. O'Brien.

On the motion of Mr. J. H. Owen, seconded by Mr. Drew, a unanimous vote of thanks was given to the president for his address.

The other resolutions passed were:—"That the president's address be printed and published at the expense of the Association." "That the Association is deserving of the support of the profession at large." "That it is most desirable to enlist the sympathies of the professions connected with architecture—Painting, Sculpture, and Engineering."

The chair having been vacated by the president, the Lord Mayor elect was moved thereto, and after the passing of the usual votes of thanks, the meeting separated.

CURRENT LITERATURE.

THE MAGAZINES.

Dublin University Magazine.—Our old *University Mag.*, though a "changeling" for some years, flashes out now and again with its olden light. "Irish University Education Reform" is a remarkably well-written paper, but of course will not please all politicians. "The Lives of the Lord Chancellors of Ireland" are continued, and that now dealing upon Lord Chancellor Blackburne is not the

worst of the series. There is scope for a good deal of display in dealing with such subjects from an Irish point of view, for the associations in connection with the lives of our Lord Chancellors are rife with memories of a most attractive kind. The writer has already given us some good sketches: he can yet do much better. The *University* is full of story this month, but the tales will be more attractive to London than to Dublin readers. What has become of all the olden literary spirit of this city that we cannot support the children of our own brain on our own soil? Publishers—fah! We look around in vain through this city and can scarcely discover aught but the catpaws of foreign houses—publishers in name but hucksters at heart, who would, in the language of Moore, prey (like those insects in the woods of the north) on the brain of the elk to its very last sigh. Dublin had once a few racy and genial publishers—men with large hearts and generous impulses; consequently, during their lives the literature of Ireland was of native growth, and not a transplanted article.

Blackwood returns this month to its vigorous papers in dealing with Cabinet measures, and gives a thorough review of "The Session of 1872," proving, of course with some degree of truth, that the last session has been a failure in legislative matters. We cannot enter into the political questions discussed, but to those who live by politics, or trade upon it, the article will be found most useful. "The Parisians," a story of French political and social life, is commenced, dealing somewhat sharply with the republican or anarchist party in the late revolt. "William Smith," a biographical paper, will please the admirers of that writer. "Horatian Lyrics" are parodies of the Odes, and touch up the follies and sins of modern England. The number as a whole is good.

Cornhill has a practical and useful article upon coal, from which we will give an extract, on account of the growing interest of that question:—

"Professor Ansted mentions that a quarter of a million of square miles of the earth's surface are covered with sandstones and shales of the carboniferous period, among which coal is buried, and this coal is for the most part accessible. Now there are upwards of 3,000,000 square yards of surface in a square mile, and assuming an average total thickness of ten yards for all the distinct seams of each coal-field, we find for the total number of cubic yards of available coal the enormous figure 7,500,000,000,000. As a cubic yard of coal weighs nearly a ton, we may say that there are in round numbers seven billions of tons of coal available for the use of the human race. If we took the average number of human beings living at each moment during the next 3,500 years to be 2,000,000,000, and the annual consumption for all purposes to be at the average rate of one ton per human being, the supply would last for that enormous period. *Coal in Great Britain*.—Let it be granted that our total available supply amounts to 150,000,000,000 of tons. Then at our present rate of consumption, amounting to nearly 120,000,000 tons per annum, this supply would last the nation 1,250 years. But, large as our consumption is, it is not the actual rate which is alarming, but the annual increase of rate. Year by year our consumption is increasing. Ten years ago it was under 84,000,000 tons, so that the average rate of increase during the ten years has been more than 3,500,000 tons. Taking it at only 3,000,000, the supply would not last 280 years."

The article on "Gardening" is worth perusal by all lovers of that art. "The Legends of Old America" contain some very odd and curious information. "Old Kensington," the serial story, is continued, and increases in interest; and in an article on Shakspeare's "Tempest," the origin of that play is discussed with some degree of ability.

Frazer always, or nearly always, contains some good papers, and often on Irish subjects, or on subjects of considerable interest to our countrymen. "Peasant Proprietors" will please a certain and large class in this island; there are others will think that the views advocated anent the Land question would, if carried out, lead to a social revolt. "Mr. Cattyne's Misadventures" are romantic, but withal amusing. A paper on Norwegian poetry ought to have a certain attraction for

Irish readers. The article is interesting, and translations are given from the original of several pieces.

Tinsley is full of serial tales, some of them good. "A Pair of Blue Eyes" (why not a pair of black—not of the artificial kind, though as black as sloes withal) is not bad. The poetry is also of a better description than in other monthlies under notice. "The Cycles of Time," "Helen," "A Love Song," contain poetry worth notice. "Musical Recollections of the last Half Century" is continued, and is attractive. The poems on "Beautiful Names" are continued this month, dealing with the name of Madeline, which is well wrought out—

"First at the tomb, and last beside the cross."

London Society contains a few papers of excellent reading; though they may lack solidity, they will be found interesting. Mr. Henry Blackburne's "In the Norman Land," and the verses by Mr. Escoff, "With the Bloom On," are good; and so is Mr. Charles Reade's "Simpleton." "London and the East" and "Talk of the Town" is a species of light literature that will please many readers.

The Gentleman's may fairly compare with its competitors. "Stranger than Fiction," by the editor, is continued, and does not lack in merit. "Old Loves and Old Letters," by a Lady of Quality, "Players of our Day," and Mr. Cadwallader Waddy's "Sporting Breach-loader and its Origin," are three papers of an attractive order. Joaquin Miller furnishes his second part of "Isles of Amazons," and the lines on "Silence" contain thought and expression, but we think we have found the same thought somewhat similarly expressed by some of our Irish poets in days not long passed. The poem, however, and others of the same author, possess a good deal of merit.

St. James's has an Irish story, "The Potheen Makers." Potheen seems to be growing attractive on the other side of the channel. Dunville, Daly, and Kinahan's LL have for some years been patronised; perhaps if someone would introduce a drop of the real "eratur" it might give a zest to the readers of these stories. "Fatal Inheritance," by Mrs. Mayer, and "Miss Dorothy's Charge," are well-told stories. Uhland's Legend of Strasburg is rendered by Mr. Cosens in a graceful way. Sir John Bowring continues his "Nosegay of Translations" from the poets of other lands.

The Fortnightly Review has for its opening an article by Mr. Edward A. Freeman on "The Growth and Origin of Romanesque Architecture." We will probably have something to say concerning this article on another occasion in this journal. "The Morality of Married Life" has an unmistakable Malthusian spirit about it, and on the whole we do not know if it would not have been better for Mr. Cookson to have let the question alone.

St. Pauls is not up to the usual standard this month. Among the contributions of merit are "The Cardinal's Lament" and Jean Ingelow's opening story.

Temple Bar contains a new serial by Wilkie Collins, entitled "The New Magdalen." When will the struggle for catching names cease? Miss Broughton tells a story—"Man will be Won." Many of her sex would like to know how and when. "A Prose Pastoral" is prematurely weak, and so are other contributions. Mr. Collins's story opens well.

The Argosy has a good paper "On the History of the Novel in England;" "A Sketch from Life" is also a well-written paper. "Within the Maze," by the editor, is continued, and is a good story.

Belgravia still continues with Mr. George Augustus Sala's "Imaginary London." His Sketches of Sahara Gardens and Behemoth Gate can be recognised by any Londoner. They are well written, and characteristic of the author's style. Rev. M. G. Watkins's "Life's Love" and Mr. Talbot's "Jaek Pugh's Legacy" are very interesting and readable papers. *Belgravia* for this month will be found worth reading, and when read worth the time and the money, which is not always the case with it or others of its rivals.

"THE QUERIST."

BY GEORGE BERKELEY, BISHOP OF CLOYNE.

(With Notes by "Dublinensis.")

"FIRST PUBLISHED A.D. MDCCXXXV."

WHETHER nine-tenths of our foreign trade are not carried on simply to support the article of vanity? [In dress and garnishing the human body, vanity is still exercised to an inordinate extent in this country by the use of foreign wares, and the evil would be supportable if one-half of these commodities were produced at home.]

Whether it can be hoped that private persons will not indulge the folly, unless restrained by the public? [Unfortunately it is the public who promote this folly by making it more fashionable.]

How vanity is maintained in other countries? Whether in Hungary, for instance, a proud nobility are not subsisted with small imports from abroad?

Whether there be a prouder people upon earth than the noble Venetians, although they all wear plain black clothes? [We are both poor and proud in this country in many respects, yet a vast number of our countrymen and women are content to wear the cast-off rags of the world. The Jews of London are making fortunes yearly by turning the descendants of St. Patrick into scarecrows. It would be a difficult thing to find a dozen of working men in this city, even in their Sunday suits, dressed alike.]

Whether a people are to be pitied that will not sacrifice their little particular vanities to the public good? And yet whether each part would not except their own foible from the public sacrifice—the squire his bottle, the lady her lace?

Whether claret be not often drank rather for vanity than for health or pleasure?

Whether it be true that men of nice palates have been imposed upon by elder wine for French claret, and by mead for palm sack?

Do not Englishmen abroad purchase beer and cider at ten times the price of wine?

How many gentlemen are there in England of a thousand pounds per annum who never drink wine in their own houses? Whether the same may be said of any in Ireland who have even one hundred pounds a year? [In the last century there was an enormous consumption of wine, but whiskey and double X in the present century supplied its place, to the ruin of the middle and lower classes. Cheap wines—"cheap and nasty,"—are again looking up, and a large portion of our business classes are becoming wine-bibbers.]

What reason have our neighbours in England for discouraging French wines which may not hold in respect to us? [Spanish wines are now in vogue, and whether they be wines or not, so long as they are labelled as such, the drinkers will not always bother their heads about the quality.]

How much of the necessary sustenance of our people is yearly exported for brandy? [Brandy, so called, and turpentine gin.]

Whether if people must poison themselves, they had not better do it with their own growth? [Much better, indeed. Killing one's self with a dose from Jameson's or Busby's butts would be more profitable to Irish trade, though of no immediate or remote benefit to the suicide. The coffinmaker had best state his objections, if any.]

If we imported neither claret from France nor fir from Norway, what the nation would save by it?

When the root yieldeth insufficient nourishment, whether men do not top the tree to make the lower branches thrive? [It is a great pity there is no method for topping the tree in the human family, though it is hard to say if some heads were topped the bodies would not be quite as useful to the public service as they were previously.]

Whether, if our ladies drank sage or baum tea out of Irish ware, it would be an insupportable calamity? [Belleek pottery affords an opportunity to our ladies to test whether a cup of tea drank out of that ware deteriorates in taste. It is Irish, and possibly many

of them think it is vulgar to be seen with their country's manufacture upon their tables.]

Whether it be really true that such wine is best as most encourages drinking, i.e., that must be given in the largest dose to produce its effects? And whether this holds with regard to any other medicine?

Whether that trade should not be accounted pernicious wherein the balance is most against us? And whether this be not the trade with France?

Whether it be not even madness to encourage trade with a nation that takes nothing of our manufactures? [Almost perfect madness, unless indeed the import is of a very exceptional kind.]

Whether Ireland can hope to thrive if the major part of her patriots (?) should be found in French interest?

Whether great plenty and variety of excellent wines are not to be had on the coasts of Italy and Sicily? And whether those countries would not take our commodities of linen, leather, butter, &c., in exchange for them? [In days long past we exported to Italy and other places in the east of Europe, which subsequent prohibitory enactments prevented us from continuing. Even at the present day a good trade could be done with foreign countries with our native manufactures, and many useful exchanges could be made.]

Particularly, whether the *Vinum Mamertium* which grows on the mountains about Messina, a red generous wine highly esteemed (if we may credit Pliny) by the ancient Romans, would not come cheap, and please the palates of our islanders?

Why, if a bribe by the palate or the purse be in effect the same thing, they should not be alike infamous? [This is a matter particularly within the province of parliamentary and municipal agents; the present writer never votes.]

Whether the vanity and luxury of a few ought to stand in competition with the interest of a nation?

Whether national wants ought to be the rule of the trade? And whether the most pressing wants of the majority ought not to be first considered?

Whether it is possible the country should be well improved, while our beef is exported and our labourers live upon potatoes? [With an ill-housed, ill-fed, badly-clothed, and an uneducated labouring population, no country can either morally or socially improve.]

If it be resolved that we cannot do without foreign trade, whether at least it may not be worth while to consider what branches thereof deserve to be entertained, and how far we may be able to carry it on under our present limitations?

What foreign imports may be necessary for clothing and feeding the families of persons not worth above one hundred pounds a-year? And how many wealthier there are in the kingdom, and what proportion they bear to the other inhabitants?

Whether trade be not on a right footing when foreign commodities are imported in exchange only for domestic superfluities? [The great desire of George Berkeley was in pointing out the nature of our imports, to lead Irish men and women to look inward and see if the great majority of the goods we imported could not be produced at home with a little enterprise and industry, and with incalculable benefits to the nation. His advice on these matters is quite as applicable to-day in a multitude of cases as it was in 1735.]

Whether the quantities of beef, butter, wool, and leather exported from this island can be reckoned superfluities of a country where there are so many natives naked and famished? [These articles were indeed far from being superfluities; but the wretched state of the country and the absence of industrial pursuits, dearth of native manufactures, chronic absenteeism, and the want of a fostering legislation, rendered it necessary for the few poor producers in the kingdom in Berkeley's time and long years after to seek a foreign market for their wares.]

Whether it would not be wise so to order our trade as to export manufactures rather than provisions, and of those such as employ most hands? [This query ought to be seriously considered at the present day, when ship-loads of provisions are still exported in exchange for the superfluities of other nations, not to supply our wants, but to appease the vanity of our thoughtless and thriftless people.]

Whether she would not be a very vile matron, and justly thought either mad or foolish, that should give away the necessities of life from her naked and famished children, in exchange for pearls to stick in her hair and sweet-meats to please her own palate? [Vile indeed, and yet this is what mother Erin and her daughter have been doing for the last two hundred years, and seems to be improving still in the style and method of doing it.]

Whether a nation might not be considered as a family? [Most certainly.]

Whether the remarks made by a Venetian ambassador to Cardinal Richelieu—"That France needed nothing to be rich and easy, but to know how to spend what she dissipates"—may not be of use also to other people? [Would that our countrymen and women could be guided by these remarks, and profit by its application to their own case.]

Whether hungry cattle will not leap over bounds? And whether most men are not hungry in a country where fashions obtain (prevail)?

Whether there should not be published yearly schedules of our trade, containing an account of the import and export of the foregoing year? [This suggestion of Berkeley was acted upon long years after.]

Whether other methods may not be found for supplying the funds besides the custom on things imported?

Whether any art or manufacture be so difficult as the making of good laws? [To the difficulty of making good laws must be added the mal-administration of them when they are made, arising through the ignorance of the administrator, or a downright attempt on his part to subserve party or personal ends.]

Whether our peers and gentlemen are born legislators? Or whether the faculty be acquired by study and reflection?

Whether to comprehend the real interest of a people and the means to procure it doth not imply some fund of knowledge, historical, moral, and political, with a faculty of reason improved by learning? [It would appear in these days to candidates for parliamentary and municipal honours, that all knowledge is a "bore," and ignorance the greatest bliss. What is termed the "gift of the gab," or, as Goldsmith says, "words of thundering sound," and smothering blarney, go to make up the reputation of some of the "Men of the Time."]

Whether every enemy to learning is not a Goth? And whether every such Goth among us be not an enemy to the country? [Rather every enemy of learning is a Vandal, and every Vandal, whether he tries to overthrow public morals or impede the education of the people, is a moral assassin, for whom capital punishment would not be too much reward.]

Whether, therefore, it would not be an omen of ill presage, a dreadful phenomenon in the land, if our great men should take it in their heads to deride education?

Whether, on the contrary, it should not seem worth while to erect a mart of literature in this kingdom, under wiser regulations and better discipline than any in Europe? And whether this would not be an infallible means of drawing men and money into the kingdom?

Whether the governed be not too numerous for the governing part of our College (Trinity)? And whether it might not be expedient to convert thirty native places into twenty fellowships? [When Bishop Berkeley first penned this query there was great need of reform in the government of Trinity College, and at the present day there is much

room for improvement. University Reform is a tree of slow growth in Dublin, yet the *Alma Mater* can be complimented for some progress made during the last half century.]

Whether if we had two colleges, there might not spring an useful emulation between them? And whether it might not be contrived, so to divide the fellows, scholars and revenues between both as that no member should be a loser thereby?

Whether ten thousand pounds well laid out might not build a decent college, fit to contain two hundred persons, and whether the purchase money of the chambers would not go a good way towards defraying the expenses? [Bishop Berkeley's ideas about the foundation and conduct of colleges in his day were good, but under the changed state of society his suggestions are inapplicable, though still containing valuable hints which under a modification would still be found worth entertaining.]

Where this college should be situated?

Whether, in imitation of the Jesuits at Paris, who admit Protestants to study in their colleges, it may not be right for us also to admit Roman Catholics into our college, without obliging them to attend chapel duties or divinity lectures? And whether this might not keep money in the kingdom, and prevent the prejudices of foreign education? [Here is another query of the good bishop's, which shows his wonderful foresight, and illustrates his liberal and enlarged mind. One hundred and thirty-seven years ago he would have opened Trinity College to his co-religionists, but his wish remained unaccomplished until recently. Truly vast sums of money might have been saved to this country if her youth had been educated at home, no matter to what creed or sect they belonged. Prejudices, however, are as easily acquired at home as abroad, and a little travel as a "finishing-up" process, will rub the sharp arrises off the over-prejudiced native student.]

THE ROYAL HISTORICAL AND ARCHÆOLOGICAL ASSOCIATION OF IRELAND.

The quarterly meeting of the above Association was held on Wednesday the 2nd inst. at Butler House, Kilkenny.

The Mayor in the chair.

The Rev. Hugh Prichard was elected a Fellow of the Association.

The following were elected as members:—

Rev. Richard Æ. Baillie, A.M., William James Knowles, Esq., Rev. Thomas Heany, A.B., Francis Shine, Esq.

THE MUSEUM AND LIBRARY.

The Rev. James Graves said that a committee had been nominated early in the present year to ascertain whether it would be possible to obtain sufficient local aid as would place the Museum and Library of the Society in an independent position, and make them creditable to Kilkenny, it being considered that the Museum and Library were really of very little use to members of the Association residing at a distance. Besides, it was desirable to have their continuance secured to the locality, should the Association ever cease to exist. The committee had deferred taking action in the matter till the present time, as this was the season at which the gentry of the country were usually at home. It has been suggested that, perhaps, it might be better to wait still longer without entering on the matter. He wished to have the opinion of the meeting on this subject. After a lengthened conversation it was resolved that the committee should take immediate action in the matter.

THE REPAIRS OF ST. FRANCIS' ABBEY.

Mr. Prim reported that the works of reparation at St. Francis' Abbey had progressed as far as—and indeed a little further than—the fund raised for the purpose would permit. An account had been rendered a couple of years since of the first fund subscribed, in placing metal pillars to support the south

side of the belfry-tower. The subscriptions to the second fund, for further works of very necessary reparation, amounted to £36 8s. 6d., including the subscription of £10 from the Corporation. The haunches of the tower had been supported and secured against the percolation of water, and all the previously open joints had been carefully filled; the sedilia had been repaired, and all the windows of the choir had been opened, after being walled up for perhaps a century to adapt the ancient building to a racquet court. Nothing could possibly be better than the effect thus produced. There was room for some further improvement, if means would permit, but of course the great point was to save the tower from the destruction which hitherto seemed closely impending, and he hoped that had been accomplished. The expenditure was £39 15s. 5d., leaving a sum still to be met of £3 6s. 11d., and which he hoped some liberal and enlightened member of the community would contribute.

Mr. Graves said Mr. Smithwick had kindly promised to remove a portion of the coopers' shed in his brewery premises, which had been erected against the centre mullion of the great east window, while it was built up. This would be a great improvement indeed, as it would leave the fine window quite open. They were deeply indebted to Mr. Middleton, but for whom they could have done little indeed towards securing the object which they had in view when they entered on the undertaking of making necessary repairs at the Abbey.

PRESENTATIONS.

Samuel Ferguson, Esq., Q.C., LL.D., through Mr. Prim, presented the society with paper casts, according to the process which he had himself invented, of several of the Ogham inscribed stones of the County of Kilkenny. This valuable presentation was accompanied by a memoir from Mr. Ferguson, of very great importance to every one interested in Ogham investigation. In closing his remarks upon the subject of the Oghams, Mr. Ferguson observed:—

"I cannot conclude without expressing my admiration for the zeal which has assembled so many objects of high archaeological interest in your museum, that secured for these objects means of exhibition so commodious and even elegant. To have achieved these ends in a provincial city of Ireland bespeaks eminent ability, and a noble ardour in the pursuit of knowledge. Kilkenny has now been made as distinguished a centre of solid and manly learning, as it used to be of bright and genial social influences. With cordial good wishes for your continued success in cherishing the lamp of letters, I am, &c. "SAMUEL FERGUSON.
"John G. A. Prim, Esq., Kilkenny."

It was resolved that a special vote of thanks should be given to Mr. Ferguson for his valuable donation and still more valuable paper, the latter of which was ordered to be printed in the Association's "Journal."

The Mayor suggested that the important testimony to the value of the museum borne by Dr. Ferguson, should be put forward by the Committee in support of the appeal which they were to make for aid towards rendering it a permanent institution in Kilkenny.

Mr. T. Stanley, Tullamore, presented a plaster of Paris cast of a portion of the sculptures on the cross of Durrow, King's County. It represented in very bold relief and primitive character the intended sacrifice of Isaac.

The Rev. Jas. Graves presented a rubbing from some curious sculptures of a primeval character on a standing stone in the parish of Muff, about four miles from Culmore Fort, near Londonderry. The carvings consisted of a number of concentric circles, in the centre of most of which were cup-like hollows, with channels drawn from the cup of some across part of the circles, and in one or two uniting the cups of two circles. These have a strong resemblance to the similar carvings found upon rocks in Scotland, and in fact this was the only similarly carved stone of the kind which he was aware of as having

been observed in Ireland. The Rev. Richard Æ. Baillie, of Culmore, had some time since written to call his attention to this curious stone; but he had recently visited the locality and, with the assistance of Mr. Baillie, made the rubbing himself.

Mr. William Gray, presented a coloured drawing of an interesting bronze pin, with ring, found in the crannog of Loughravel, parish of Duneane, County Antrim, and now in the collection of Mr. Knowles, of Cullybackey.

Mr. W. F. Wakeman, Enniskillen, presented a curious little ancient copper cruise, supposed to be intended for holding holy oil.

THE ANCIENT PARISH CHURCH OF NEW ROSS.

Mr. Graves read a letter from Mr. G. J. Hewson, Hollywood, Adare, on the subject of the condition of the remains of the beautiful parish church of St. Mary's, New Ross; observing that, with the writer, he sincerely hoped it might lead to some steps being immediately taken for its preservation from further decay and danger of destruction:—

"My object in writing this letter is to call the attention of the society—and particularly of the local and Co. Wexford members—to the present state of the most interesting remains of Early English ecclesiastical architecture still existing in the ancient abbey church at New Ross. Much of this beautiful building had been taken down to make way for the present parish church, but much still remains which requires some care for its preservation. The part which most urgently requires attention is the north transept. The east angle of this transept is in a dangerous state, and if not at once secured the beautiful three-light window will soon be lost. A buttress was formerly placed against this corner, but it was not continued high enough, and about 8 ft. of the top of the angle is now in immediate danger of being thrown over the top of the buttress by the thrust of the window arches. It can still be secured by extending the buttress on a longer base, and carrying it up to the top of wall; but if not done at once it will be too late. The next thing requiring attention is the south side of the chancel. On this side there are next the east end two windows close together and near the south transept three others also close together. There is a long space between, which at the outside shows a closed-up doorway, one of the most interesting and, I believe, the earliest feature now existing in the building. The door is semi-circular-headed, the capitals of the columns at side are, as usual in such doors, different, and both in a very early style—the one to the right side showing unmistakable traces of the involved ornament. Some of the stones used in stopping the doorway have lately been taken out, near this capital, and in doing so a large piece has been freshly broken off the side of the capital. There is the mark on the wall of a porch having enclosed this door, and the wall over it is considerably out of the perpendicular, leaning over very much at the top. This requires a high buttress at the west side of the door to secure it. The casing of this door, as well as most of the ornamental stone work of the church, is formed of the soft oolitic stone so often seen in our early churches. . . . The interior of the chancel contains a very early and perfect piscina at the south side, and a beautiful recised tomb at the north side; this latter is now nearly smothered with ivy, the drop from which in particular spots is wearing away the beautiful ornamentation from the soft stone of which it is composed. This ought certainly to be cleared from ivy, for no matter how picturesque ivy may look on ancient buildings, it should be confined to plain walls, and not be allowed to entirely conceal beautiful and delicate ornament, especially where of a most interesting and characteristic kind. I now will proceed to the south transept. This is a real gem, and is fortunately quite secure, but still its present state is capable of more improvement than any other part of the building. It contains a most beautiful and perfect Early English three-light window; it had an aisle at the west side, the south window of which still exists, but the outside is entirely obliterated. Three arches carry the west wall of the transept, but are now built up with brick, so as to cut off the window of the aisle from the south window of the transept, with which it corresponds in style of ornament. One of these arches is partly concealed by the present church, which is built against it, but the other two should be opened. A wall could be built on the site of the original outside wall of the aisle, as has been done at the south side of Jerpoint Abbey. There are also two chapels at the east side of this transept. The arches com-

municating with them are now built up, except a small doorway with a timber lintel in one of them; these should also be opened; and there are two large common willow trees growing in the centre of the transept, which should be carefully taken down, as they greatly spoil and obstruct the view of the interior, and are a source of danger to the building in stormy weather, and will yearly become more dangerous. I hope very much that this letter may cause some steps to be taken in time to preserve this most beautiful and interesting church, which should be much prized by the inhabitants of the town and county in which it is situated. The works which I have recommended would be a vast improvement; some of them are absolutely necessary for its preservation, and all could not cost very much."

All the members present coincided in expressing a hope that a movement might be at once initiated in the locality for carrying out the suggestions made by Mr. Hewson.

Amongst the papers brought before the meeting were the following:—

"On two Bronze-hafted Weapons of the sword or rapier class, found respectively at Belleek, County Fermanagh, and Galbally, near Trillick, County Tyrone"; by Mr. W. F. Wakeman.

"On Megalithic Structures and other ancient records in the Manor of Loughrey, County Tyrone"; by Mr. G. H. Kinahan, M.R.I.A.

On the motion of the Rev. Dr. Martin, seconded by W. H. Bracken, Esq., the usual vote of thanks was given to donors and exhibitors, and the Mayor declared an adjournment till the first Wednesday in January.

THE TEMPLE OF DIANA AT EPHESUS.*

A REPORT has been printed of Mr. Wood's exploration of the Temple of Diana, with brief notes on the more important of his discoveries. The first happy of former attempts at a solution of what was for many centuries an archaeological problem, the true site of the great Temple, was made in 1824 by Col. Leake. The first accurate survey of the Gulf of Scala Nova was made for the Admiralty Chart of the coast, and was issued in 1836. It comprised Ephesus and its environs. On this were based the plans published by Herr Kiepert in the 'Atlas von Hellas,' 1841-6, and by Herr Gohl, in his 'Ephesiaca,' 1843. These maps laid down the site of the Temple conjecturally from ancient incidental notices of the building, and placed it on the north side of the city, and to the west of the mediæval castle of Aiasoluk. These conjectures were erroneous; but to the antiquaries who offered them considerable credit is due, as they were the first to indicate the quarter in which search ought to be made. In 1862, Mr. Falkener's 'Ephesus' was published. In that work the author suggested a new site for the Temple, at the head of the harbour on the west of the city, and at the time we were disposed to accept his view: it at least possessed the elements of probability, and was not readily discredited. Herr Kiepert, as late as 1870, adopted Mr. Falkener's notions; but not entirely without hesitation, for in a note to the edition of the 'Atlas' published in that year, he referred to the researches of Mr. Wood as "affording the only sure evidence."

Mr. Wood's labours began as long ago as 1863, and were, at the outset, conducted entirely at his own cost, without implements, plant, or a dwelling; in fact, with no aid whatever, except a firman, obtained by the Trustees of the British Museum, who seem to have recognized his undertaking in an irregular sort of way. In November, 1863, Mr. Wood obtained a small sum from the Trustees, and explored the Odeum, finding there certain inscriptions, and among them two letters from Antoninus Pius to the people of Ephesus, A.D. 145 and 150. Mr. Wood next set to work on the Great Theatre, and with much better results. He found several letters, among which was one from the Emperor Hadrian to the Ephesians, dated Sept. 27, 120. Another inscription referred to the Temple of Diana, and contained curious particulars regarding the endowments and ritual of the Temple, such as lists of votive statues of gold and silver, with their weights, the regulations under which such sacred objects were to be carried in processions, and the uses to which certain funds, the proceeds of these dedications, were to be appropriated. This document, which is imperfect, is one of the longest yet found in Asia Minor. In the lists of statues in the precious metals mention occurs of several figures of

Diana with two stags, doubtless such as were manufactured in great abundance in Ephesus by Demetrius the silversmith and his brother craftsmen, and frequently occur on the city coins under the Empire. It is ordered that these votive objects be carried in procession on certain days from the Temple, through the Magnesian Gate to the Great Theatre, and thence through the Coressian Gate back to the Temple. This clause in the inscription furnished the first clue to the discovery of the Temple. Another of these inscriptions records the gift of the citizenship to Agathocles, a Rhodian, for selling 14,000 measures of wheat at less than the market price in Ephesus. Some of these slabs appear to have been removed to the Great Theatre from the Temple of Diana; on these it is stated that they were ordered to be set up in that edifice, whence they were probably removed to repair the Theatre long after the destruction of the Temple; they were, it is surmised, taken from the walls of the *cella*.

After clearing out the Great Theatre, Mr. Wood discovered one of the city gates, which he had good ground for supposing to be that mentioned by ancient authors as the Magnesian Gate. Outside this gate he discovered, at the depth of about 11 ft., a road, with tombs on each side. "We know from Philostratus that in the second century, A.D., a certain Damianus built a *stoa*, or covered portico, which led from the Magnesian Gate to the Temple of Diana, and that this edifice was designed to shelter the citizens from bad weather during the great processions." Just such a portico, at the present day, has been built at Bologna, to connect the city with the church of the Madonna di San Luca, and to protect processions from the sun and rain. The road pointed in a north-easterly direction, and at its side was a row of bases of square piers, such as would have served to support a *stoa* like that of Damianus. Mr. Wood saw clearly that he had found one of the principal avenues leading to the city, many of the tombs which lined its sides being those of persons of rank, such as the imperial prætor of Asia, the prætorial legate of Pontus, &c.; and he continued to explore this road until 1869. In the course of these researches, he discovered another way, leading from a city gate near the Stadium to the Turkish village of Aiasoluk; and here likewise were tombs and bases of piers, indicating a long portico. Looking at the direction of this second road, in relation to that of the former, which led from the Magnesian Gate, and the position of the Great Theatre in reference to both, Mr. Wood thought it probable that these two roads would be found to converge to the same point, and that that point would be the Temple. In that case the Coressian Gate, through which, according to the inscription of Salutaris, the procession from the Temple was to pass, would be that near the Stadium; and the gate Mr. Wood had previously explored would be the Magnesian Gate. It was hoped that by following the track of these two roads, the enclosing wall of the Temple, which was, as we know, very large, might be hit upon.

These hopes were verified. In April, 1869, Mr. Wood struck on the angle of the enclosing wall, just where it might be expected to be. In this wall, composed of rough-hewn blocks of irregular masonry, was an inscription in Greek and Latin, to the effect that Augustus, out of the revenues of the goddess Diana, had built an enclosing wall round her temple. The inscription was in duplicate, the two stones being inserted in the wall at equal distances from the angle; and in the same walls, rather farther from the angle, were inscriptions, stating that Augustus had at the same time restored certain sacred boundary pillars. Mr. Wood followed the wall as far as he could, and, by November, 1869, had traced it in a north-westerly direction for about 1,200 ft., after which it tended towards the west, outwardly, and all signs of it were lost. He then sunk pits within the presumed enclosure, hoping thus to hit on the site of the Temple, and in the beginning of the year 1870 he found extensive Roman foundations, and a mosaic representing a Triton. Some of these foundations were probably those of the lodgings of the ministers of the goddess, or visitors. The ancient level was generally covered by from 18 to 21 ft. of alluvium. Here many inscriptions were found, chiefly votive, and relating to the *ἱερὸν* of Diana. A pavement of square blocks of white marble, 9 in. thick, laid on a level bed of black marble, according to the Greek practice, was also discovered; while on the floor were fragments of statuary, with splinters of white marble, which seemed to have been calcined. This spot was close to the great mosque at Aiasoluk. It was determined to continue the search, and several drums of Ionic columns, ranging from 4 ft. 6 in. to 4 ft. in diameter, of white marble, and with fine joints, were discovered. In the autumn of 1870 more comprehensive explorations were made, and more drums found; one of them was 5 ft. 7 in. in dia-

meter. In January, 1871, the excavation measured about 100 ft. square, and it was about 19 ft. deep. The pavement at the bottom appeared to have been removed in some places. In February, 1871, a fragment of the lowest drum of a column, 6 ft. 4 in. in diameter, was found in its original position, on its base. These remains demonstrated that Mr. Wood had found the long-sought Temple of Diana; and the field where the marble pavement was found was purchased, and so much of the adjacent land as would be required for due exploration of the site. This done, it was resolved to undertake more vigorous measures than before. By May, 1871, a portion of the area of the Temple, 210 ft. by 130 ft., was cleared down to a depth of 14 ft., below which was about 6 ft. of *débris*; in September, the work, which had been temporarily suspended, was resumed, and traces of the wall of the *cella* on the south, and remains of piers, which may have supported the outer steps of the Temple, were found. Mr. Wood concluded that the intercolumniation was 17 ft. At the western extremity of this excavation were found the lower drum of a column, nearly entire, weighing seven tons and a quarter, with figures in high relief, large fragments of similar drums, the base of a pilaster, likewise sculptured in relief, and, on the same scale, an Ionic capital in fine condition, &c. It was evident that these were portions of those thirty-six columns of the Temple which Pliny describes as *calata*, "sculptured in relief." These remains were transported to the British Museum, and are now to be seen there. Mr. Wood has continued his excavations, uncovering, up to April last, on the south side, rather more than half the presumed length of the Temple. Much less has been done on the north, but in that part of the excavations the foundations of the base of a column were disinterred, which, Mr. Wood supposes, marked the line either of an inner or an outer row of columns; thus furnishing, when combined with the base discovered on the other side, approximate data for a calculation of the width of the Temple. He here also found, above the ruins of the Temple, fragments, which appear to be interesting, of another building, probably a church.

The plan of the Temple remains yet to be traced,—the distribution of the sculptured columns has to be explained,—portions of the architrave have to be sought, besides other elements of the superstructure. Important inscriptions may be looked for, and there is reasonable hope that some more sculpture may appear. As it seems to us, the most precious artistic fragments are to be looked for, not among the ruins of the later Temple, but under its pavement; if crypts exist there, many curious votive objects may yet remain.

SANITARY REFORM IN DUBLIN.

NOTWITHSTANDING the apathy displayed by our Corporation on matters affecting the sanitary condition of the city, we are pleased to observe that outside their body a growing interest is being displayed in many quarters to give more attention to the all-important question of the public health. Dr. O'Leary has latterly been giving a course of public lectures, which are entitled to commendation. We have ourselves laboured persistently and unceasingly to direct public attention to this all-important question, and we have felt bound to speak in no unmeasured terms to the gross neglect that characterised the conduct of our local rulers, on whom devolves the duty of attending to the sanitary state of this city. In one of his late lectures on "Hygiene," Dr. O'Leary justly said that—

A knowledge of hygiene is necessary to the well-being of the working classes, and prefaced his observations by stating that he had undertaken the subject in the face of many admonitions from friends, who had warned him that in touching upon matters which bore, however remotely, upon the relations between labour and capital, he was treading on dangerous and difficult ground. But it was far from his aim to excite discontent or any kindred sentiment between any sections of the great industrial classes. He sought only to discharge what he regarded as an imperative duty, in pointing out the miserable condition in which certain grades of the operative classes existed, with the hope to excite endeavours for its amelioration. The learned lecturer proceeded to develop his address, and selecting for the illustration of his topic that portion of the operative tailor body who work under the "sweating" system, drew a picture of the social, domestic, sanitary, physical, and moral condition of those poor people, which was as affecting as it was graphic. He said that in this city a large number of poor tradesmen dragged out their miserable lives in a

* From the *Athenæum*.

slavery worse than that which Mrs. Stowe had painted. These men, earning their bread from employers who, if they were not inconsiderate, paid the first regard to the exigencies of their business, very often received their week's "piecework" only on Wednesday afternoon. There was much extenuation in their conduct if, on the two preceding working days of the week, they should be driven by despair and hunger to the distraction of the public-house. When they received the work at length they executed it in squalid dens, homes of malaria, for the dwellings of many among these unfortunate persons were of a worse than troglodyte character. They were ordered, when the goods were handed to them, to have them "made up" next morning. Who did this work? The greater part of it was performed by female labour, and during the unnatural period of the night hours. Dr. O'Leary gave an example of one of these habitations—one of many in the slums of this city, which he described as an apartment some eight feet wide by fourteen long, and seven high. It was tenanted by fourteen persons of both sexes, entirely without ventilation, without indispensable convenience, without a bed, and with a living ashpit in one corner. These fourteen persons required, and were entitled to by law, 42,000 cubic feet of air, but they had only 1,800. In the course of his lecture, Dr. O'Leary commenting on the spread of small-pox from the lower to the higher classes, narrated instances in which clothes sent to be made up to these terrible hovels had been transferred from the contact of infected persons to the establishment whence they were to be issued.

THE UNITED TRADES ASSOCIATION.

At a meeting of the above body, Mr. Thomas Mulligan in the chair, attention was drawn to a printed paper in the form of a "Protest" from the Wholesale Bacon Merchants of Dublin, addressed to the "Wholesale Provision Merchants of Liverpool," protesting against the latter "selling bacon, &c., to the retail traders of Dublin." The circular contained the names of seventeen wholesale bacon merchants of Dublin, "who will faithfully bind themselves to support and deal with those merchants of Liverpool only who desist from selling to retailers as mentioned." The speaker characterised the document as one of the most nefarious combinations concocted in modern times to literally starve the poor. All the delegates present agreed that the document should be sent to the Press for exposure. Mr. Henegan, in moving that a copy of the circular be sent to the newspapers, observed that, considering that bacon, as an article of food, was run on by the poorest classes of society, he looked on the attempted monopoly as a wicked conspiracy. The rope-makers' delegates reported that a deputation waited on all the fair employers in that trade for an answer to the circular which had been previously served on each firm, concerning an application for an advance of 3s. a week, which, if conceded, would bring up the scale to £1 7s. a week for a full week's work. The largest employers in the business in Dublin intimated beforehand that they would not trouble the deputation to wait on them, but would concede the demand of the society; and, further, that they would employ additional hands at the advance. The above firm have so far carried out their promise that they employed seven additional men on Monday morning, which makes nearly forty rope and twine spinners in that establishment. The delegates further reported that all the other regular employers followed suit. There was, however, one exception. The employer in question refused to give the advance until the 1st of November. The deputation were willing to concede a fortnight, but the employer would not accept the concession, which resulted in eleven men having reluctantly to resort to the expedient of a strike; eight of the men have since been employed in other establishments at the advance. Mr. Matthew Doyle proposed, and Mr. Patrick Hogan seconded, "That the rope-makers' report be adopted, and that the marked thanks of the United Trades' Association be tendered to those employers in the rope-making trade who have given the advance of wages to their workmen." The carriers' delegates furnished a report in reference to the present position of that trade, which was to the effect that, on a late occasion an extensive firm had given considerable opposition to the men in their endeavours to rectify certain anomalies which existed in the business. Mr. Green moved, and Mr. Fitzsimons seconded, that the report be adopted, which passed. Mr. James Jones, on the part of the Saddlers and Harnessmakers' Society, said that they had received a communication from Mr. Samuel Hudson, secretary to the Master Saddlers' Association, concerning a desire on the part of some of the masters to have a conference

with the men regarding a proposition to arrange a new scale of piece-prices, &c. A reply had been sent to Mr. Hudson, expressing the resolve of the society to meet the employers, but only on the basis of the weeks' work as it at present exists in the trade. The men require to be furnished in writing with the masters' proposals, so that they may know exactly what the masters require. All the delegates present fully endorsed the sentiments of the saddlers of Dublin. The paviors' delegates reported that Committee No. 1 of the Corporation have arranged to meet a deputation from the men out on strike, which it is expected will have the effect of settling the dispute which has been going on for the last three weeks.

"REPRESENTATIVE ACTORS."

A work has been issued by Messrs. Warne & Co., London, prepared by Mr. W. Clarke Russell, under the above title. It is an amusing and interesting work, not only to English, but to Irish readers. It gives an account of the most of the remarkable actors and actresses from the days of Elizabeth down to our own, and in its pages we come across a few names well known to the old playgoers of this city and their fathers and grandfathers. Belonging to the present century the volume includes some Irish actors who were considered unapproachable in their day in their peculiar line of acting. For the present we will content ourselves with giving an extract from the volume in relation to one who is still remembered by many an old Dubliner as the famous

"JACK JOHNSTONE."

JACK JOHNSTONE, 1750—1828.—He taught our dramatists all that was pleasant of Irish character. It had been rendered vulgar. He made it sparkle with humour, and, whether in anger or jest, always delightful. The Prince of Wales was partial to his Irish ballads. Johnstone had one note (E in alt.) which he took clearly in his falsetto. He used to dwell tediously on that note. Suett told Erskine, that the Prince, entering his box while Johnstone was at his favourite exercise, said, "I verily believe he has held that note ever since we were here. (*The Records of a Stage Veteran.*) He was the only actor who could personate both the plebeian and patrician Irishman. His favourite characters, Sir Lucius O'Trigger, Callaghan O'Brallaghan, Major O'Flaherty, Tully, the Irish Gardener, and Dennis Brulgruddery. Macklin read his own *Loce a la Mode*, and when Johnstone expressed his admiration, "You shall play it," said the veteran (Blackwood's, May, 1839).

TO CORRESPONDENTS.

GANDON, THE ARCHITECT.—This celebrated architect was of English birth, but he did more for Irish architecture and the beautifying of this his adopted city than any other architect since his time. He died at his residence in the village of Lucan, and he lies buried in the churchyard of Drumcondra, in the grave of his bosom friend, the famous Captain Francis Grose, the antiquary. See Mulvany's life of the architect for further particulars.

A QUARRYMAN.—A quarry of black building stone was worked several years ago at Killester, Co. Dublin. A quarry of similar building stone is at present worked at Finglas. It is suitable for walling purposes.

BUILDERS' IRONMONGERY.—In the early part of the present century there were still in existence one or two manufactories for the production of this class of ironmongery. We cannot see why the trade could not be again gradually revived, instead of importing the most simple and trivial matters in this line from Sheffield and Birmingham. Sash and door furniture of every description and builders' appliances could be produced in Dublin with a little enterprise.

MATCH MANUFACTURE IN DUBLIN.—A Mr. Rainey, about the year 1851-2, at the suggestion of the then Board of Irish Manufacture, took up the manufacture of matches, and made some progress with the trade. For want of sufficient experience or capital the affair collapsed. Surely there is but little experience, and not a great amount of money, required to establish such a simple business. Thousands of poor people earn a living in London by making match-boxes in their homes for Bryant and May and other manufacturers.

SIR JOHN BARRINGTON.—We are not aware that the present Sir John is any relative to the historian of the "Rise and Fall of the Irish Nation." The member for Clogher in the Irish Parliament was not a Quaker. He could write well, but, concerning the sinosities of his public life, it is not our province to speak of in these pages.

THE DUBLIN CORPORATION.—We are informed that a notice will be given early in the next session of Parliament concerning the condition of some matters managed by our local authorities. Returns will be asked for, and, of course, the Irish Executive will no longer throw any obstacles in the way of a clear statement of facts.

OUR WATER SUPPLY.—Notwithstanding the alleged wanton use of water, there are several places through the city for which the supply has existed almost in vain. There are rookeries embedded in human filth and poisoned by exhalations from sewers, or rather elongated cesspools, with no

proper outlet. Our Waterworks have been a costly and an extravagantly extolled affair; and, without detracting from any man's merit, we think it is high time that the true particulars of the history and cost of our water supply were known. A stranger would suppose, from all the fuss and rubbish that is spoken upon the subject, that the cost and credit of our Waterworks belong to one or two individuals, and that the expenses were defrayed out of their private purses, instead of by the heavily-taxed ratepayers of Dublin.

HOME AND FOREIGN NOTES.

ROYAL INSTITUTE OF THE ARCHITECTS OF IRELAND.—The sessional meetings of this body will commence on the 14th proximo, at the rooms, 212 Great Brunswick-street. The president, J. H. Owen, M.A., will deliver an address on the occasion. It is to be hoped that a better attendance of members will be observable during the session 1872-73 than was in the past one.

BELFAST ARCHITECTURAL ASSOCIATION.—Yesterday evening a meeting was held in Messrs. Young & Mackenzie's office, Calender-street, for the purpose of forming an architectural association for Belfast. John Lanyon, Esq., architect, occupied the chair. There was a large attendance of those connected with the profession. Resolutions were unanimously passed approving of the formation of such a society, and a committee was appointed, with Mr. R. Young, jun., as secretary, for the purpose of framing a set of rules and arranging for future meetings. Much interest was evinced by those present in the objects of the association.

INSTITUTION OF CIVIL ENGINEERS OF ENGLAND.—The list of members of this society, corrected up to the 1st inst., shows that during the last three months the roll has been diminished by the deaths of two members—Messrs. Nathaniel Beardmore and Joseph Walter Gale—and five associates, viz., Messrs. Edward Banfield, Charles Haslett, Thomas Howard, Robert Jobson, and Wm. Sykes. The total numbers now on the register are, therefore, 16 honorary members, 754 members, 1,122 associates, and 243 students; together, 2,135.

TANNING WITH GLYCERINE.—The property of glycerine to preserve leather has been known for a long time; it is now proposed to employ it in tanning, to increase the elasticity and resistance of the leather. This system of tanning is particularly adapted to straps and helms of machinery, as it keeps them from drying and cracking. It is only necessary to immerse the leather, tanned in the usual manner, in a bath of glycerine, and to leave it for several weeks, when the pores will be impregnated with the greasy substance, and the leather will be found to be much more elastic and tenacious.

TRIBUNALS OF COMMERCE.—"The Bill for the establishment of Tribunals of Commerce," which was withdrawn last session, owing to the pressure of other business, is to be reintroduced next year, and we thus early appeal to the Chambers of Commerce throughout the kingdom to do all in their power to ensure its becoming law. The laudable intention of the promoters of this scheme is to simply and expedite the operation of law in disputes occurring in the ordinary way of trade and commerce. These tribunals are to have all the jurisdiction of superior courts of law and equity. Under their auspices this perplexing distinction is to be merged, and commercial litigation to be detached and isolated from all cases wherein title was in dispute. The machinery is simple and uniform. There is to be a control court, with sub-courts. A lawyer is to preside over the former, assisted by two merchant judges, thus combining legal knowledge and business experience. The sub-courts are constituted by two merchant judges, and the district registrar in the capacity of their legal assessor. The composition of the courts is elastic as respects the number of judges employed and the frequency of meeting, these depending on the urgency of the business. But the commanding idea which pervaded the whole scheme is that of getting rapidly through with the work. The tribunals are to have jurisdiction for the recovery of any debt above £20; all questions of fact, and the construction of all commercial documents being decided by the majority of the court, while all questions of law are to be left to the judge alone. This brief outline will be sufficient to show that this measure is of weighty importance to jurists and business men throughout the United Kingdom.

PROGRESS OF THE TELEGRAPH.—The progress of the electric telegraph within the last six years has been great in every quarter of the globe. Upon this continent, the electric wire extends from the Gulf of St. Lawrence to the Gulf of Mexico, and from the Atlantic to the Pacific Ocean. Three cables span the Atlantic Ocean, connecting America with Europe, and another submerged in the Gulf Stream unites us with the Queen of the Antilles.

Unbroken telegraphic communication exists between all places in America and all parts of Europe; with Tripoli and Algiers in Africa, Cairo in Egypt, Teheran in Persia, Jerusalem in Syria, Bagdad and Nineveh in Asiatic Turkey, Bombay, Calcutta, and other important cities in India, with Hong Kong and Shanghai in China, Irkutsk, the capital of Eastern Siberia, Kiakhta on the borders of China, Nagasaki in Japan. A direct line of telegraph, under one control and management, has been established between London and with India, extensions to Singapore, Hong Kong, Java, and Australia. Europe possesses 450,000 miles of telegraphic wire and 13,000 stations; America, 180,000 miles of wire and 6,000 stations; India, 14,000 miles of wire and 200 stations; and Australia, 10,000 miles of wire and 270 stations; and the extension throughout the world is now at the rate of 10,000 miles of wire per annum. There are, in condition, 30,000 miles of submarine telegraph wire now in successful operation, extending beneath the Atlantic and German Oceans, the Baltic, North, Mediterranean, Red, Arabian, Japan, and China Seas; the Persian Gulf, the Bay of Biscay, the Strait of Gibraltar, and the Gulls of Mexico and St. Lawrence. More than twenty thousand cities and villages are now linked in one continuous chain of telegraphic stations. The mysterious wire, with its subtle and invisible influence, transverse all civilised lands, and passes beneath oceans, seas, and rivers, bearing messages of business, friendship, and love, and constantly, silently, but powerfully, contributing to the peace, happiness, and prosperity of all mankind.—*Scientific American.*

THE INFLUENCE OF VEGETABLE PERFUMES.—An Italian Professor has made researches which lead him to assert that vegetable perfumes exercise a healthful influence on the atmosphere, converting its oxygen into ozone, and thus increasing its oxidising influence. The essences that develop the largest quantity of ozone are those of Cherry Laurel, Cloves, Lavender, Mint, Juniper, Lemons, Fennel and Bergamot; those that give it in less quantity are Anise, Nutmeg, Cajeput, and Thyme. The flowers of the Narcissus, Hyacinth, Mignonette, Heliotrope, and Lily of the Valley develop ozone in closed vessels. Flowers destitute of perfume do not develop it, and those which have but slight perfume develop it only in small quantities. As a corollary from these facts, the Professor recommends the use of flowers in marshy districts, and in places infested with animal emanations, as the powerful oxidising influence of ozone may destroy them. The inhabitants of such regions should surround their houses with beds of the most odorous flowers.—*The Garden.*

"A VISIT TO EPPS'S COCOA MANUFACTORY.—Through the kindness of Messrs. Epps, I recently had an opportunity of seeing the many complicated and varied processes the Cocoa bean passes through ere it is sold for public use, and, being both interested and highly pleased with what I saw during my visit to the manufactory, I thought a brief account of the Cocoa, and the way it is manufactured by Messrs. Epps, to fit it for a wholesome and nutritious beverage, might be of interest to the readers of *Land and Water*."—See article in *Land and Water*, October 14.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & CO., Homoeopathic Chemists, London." Also, makers of Epps's Cacaoine, a thin refreshing beverage for evening use.

MANUFACTURE OF COCOA, CACAOINE, AND CHOCOLATE.—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—See article in Part 19 of *Cassell's Household Guide*.

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VOL. XIV.—No. 309.

The Improvement and Purification of the Liffey.



WITH a crude and half-developed Main Drainage Scheme hanging fire through Corporate inertness; with a system of paving, scavenging, and watering of streets that amounts to almost a

farce or caricature; with a mode of sanitary inspection which illustrates the want of method, earnestness, and performance, Dublin is still reeking in filth, and her river rolls on an elongated cesspool and public abomination. Need we ask how long is it since the public were informed that the drainage plans were prepared for carrying out this most needed work of sanitary improvement? The question of cost is likely, of course, to be dragged up again and again for public discussion before one sod is turned of the ill-fated undertaking. Hold! we are forgetting. A commencement has been made, which the exigencies of other public undertakings have accelerated. A culvert of about 100 ft. in length by 6 ft. in diameter has been constructed under the canal and railway at Newcomen Bridge, as an instalment of the Main Drainage Scheme. We may here note that the roadway on the north side of this bridge has been raised as far as Bessborough-avenue, and retaining walls of limestone with half-round coping of granite are being erected along the footways. We shall not criticise the workmanship, but will simply say this piece of corporate engineering carries with it its own sweeping condemnation. We will be surprised, indeed, if the Corporation will not have to defend more than one action for injury to house property caused by this sample of borough engineering. But to proceed.

Let it be distinctly understood, though we have yet no Main Drainage system, that the Corporation are amenable to a higher power for adopting means for abating the increasing nuisance to which this city is yearly subjected, and which in warm weather becomes perfectly intolerable. Last week the Twickenham Local Board received a letter from the solicitor of the Thames Conservators, informing that board that it was the intention of the Conservators to commence proceedings under the Thames Conservancy Acts for a disregard of the notice served upon them to discontinue the flow of sewage into the river.

We do not expect that the Corporation can do impossibilities, and rid the river by magic at a moment from the sewage that flows into it. They can, however, by a proper system of street and lane scavenging, and some little inspection of the river itself, wonderfully lessen the dreadful nuisance that its neglected state produces. The shovelling and sweeping process, by which the tons of filth that lay at the sides of the embankments were pushed up into the middle of the stream, was all but labour in vain. When the tide was down the force of the current never was sufficient to carry the solid matter down the river. It remained there until the rising tide, and was

carried up with an increase of other filth to be deposited similarly along the sides of the river as before.

If dredging the river below Carlisle Bridge is good for the shipping, it is also good for sanitary purposes, for it tends to the removal of all the foulness as well as preserving the depth for shipping purposes. Small dredging or cleansing machines should also be worked on the river occasionally along its whole city length. The bed of the river could also be lowered to a certain depth, except in the vicinity of the bridges; and even under the bridges there could be a gradual lowering without injuring the piers. Owing to the incline of the bed of the Liffey, when the tide is low the sides are uncovered with water. Did something near a level exist between King's Bridge and Carlisle Bridge, the mountain water in the driest summers would be able to flow with sufficient volume and depth to cover the whole expanse of the bed between the two embankments. Some persons have suggested the adoption of sluices or weirs at Carlisle or the other bridges, for preserving a certain depth in the river at all times, but this expedient would destroy the beautiful continuity of the river, and render it merely a canal. It is, we know, useless to suggest methods to the Corporation of this city. As to dredging the river, or cleansing it by some process similar to dredging, they are not likely to do it no more than trying to deepen it. Had we a Corporation of practical men, honestly determined to husband the income of the city estate, means could be found long years before the projected Main Drainage is half completed.

There is another question we would like to ask—Does the Corporation, through its engineers and officers, ever institute any inquiry as to the number of mills in the city of Dublin whose refuse in various forms pass direct or in a tortuous way into the water of the Liffey? Town sewage is not the only pollution to which our river and others at home and in the sister kingdom are subjected. The manufacture of textile fabrics tends, during many months, to the pollution of rivers. In the case of jute and flax, the Liffey does not stand on the same level as the rivers and streams in the neighbourhood of Belfast. The steeping of flax in rivers without any doubt pollutes the water. Paper manufacture is another great source from which refuse matter and filthy drainage proceed, and the drainage of many paper mills finds its way into some of our chief rivers. To what extent the paper, cloth, or other mills' refuse and drainage find their way into the Liffey, we are not yet prepared to say, but it would be worth inquiry.

The Poddle is a terrible source of mischief—one endless tributary of filth of every kind. Outside the city it is tolerably free, but once it passes within the city's confines it is one long covered sewer. The position and outfall of this natural main sewer will have to be considered in the Main Drainage Scheme, and utilised in the best manner. There are several small rivers or streams which the modern growth of our city has covered over, which were once pure, but are now mere putrid sewers within the city. The Bradogue, though well known in the last century, is almost forgotten now by the public. The denizens of the Broadstone and Constitution Hill have probably still some knowledge of its state and outfall. The Tolka, emptying into the estuary at Clontarf strand, of course adds nothing to the foulness of the river.

The town sewage must be utilized for irrigation purposes wherever possible, or turned by other processes into a source of profit for the city, instead of being as now a nuisance and a source of danger to the inhabitants. Of two great and crying evils—the unsanitary state of our streets and the unsanitary state of our river,—it is difficult to say which needs most attention. Without waiting for any main drainage system to be completed, there is sufficient engineering and practical knowledge in the country, that would, at a small outlay, rid us of the evils of which we complain. As a beginning, let there be an efficient staff of inspection and scavenging. There is money enough available for the purpose without an additional penny being raised by taxes or by loan; and if those on whom the duty devolves shirk the question, they will deserve the reprobation of all honest men.

THE CORPORATION AND SANITARY REFORM.

A VERY useful little pamphlet has been written by "A Member of the Dublin Sanitary Association," which may be taken as a sign of the times. We commend it to the careful and honest consideration of our heavily-taxed and systematically-plundered citizens. It is, as a whole, a clear and impartial statement of facts, and it ably supplements all that has been written from time to time in the pages of the IRISH BUILDER concerning the shameful extravagance that characterises the local government of this city.

Festering, as this city is, and has been for long years, in filth—a prey to periodic epidemics, a lasting scandal to civilization, and a disgrace to our people and others,—it needed but little more to overflow the cup of civic shame and abomination. Compared with Liverpool, Manchester, Birmingham, Leeds, and making every allowance that can possibly be made, arising from exceptional position as to trade or commerce, Dublin presents one of the saddest and most despicable pictures of corporate rule that can possibly be conceived.

There is no external evidence even needed to render complete the sad picture of our affairs. The last Borough Balance-sheet, or statement of corporate income and expenditure, is a self-confession of the utter incapacity of the present Town Council of Dublin to manage the affairs of this city. Were a prize offered for the procuration of the best body of misrepresentatives possible of obtainment for purposes of civic plunder and jobbery, Dublin would carry off the palm. How on earth can the most urgent, vital, and crying sanitary wants of this city be attended to while our citizens are taxed, year after year, for supporting a worthless lot of purely ornamental officials, whose dignity is supported at the cost of the ratepayers instead of out of their own pockets? Our Lord Mayor, with Mansion House expenses, costs the city £3,083; City Marshal, £300; Sword Bearer, £250; Mace Bearer, £150; High Constable, £100; Water Bailiff, £300; and Clerk of the Peace, £1,100 (or, less £351 fees, £749). In the important town of Liverpool the mayoralty expenses amount to only £2,800; no City Marshal; Sword Bearer, £155; Mace Bearer, £120; no High Constable; Water Bailiff, £60; Clerk of the Peace, £1,084 (less fees of £876, £208). Manchester, Birmingham, and Leeds are not saddled with any of the above civic expenses, with the exception

of Leeds, which pays the sum of £10 for a mace bearer. The Clerk of the Peace is the only exception otherwise in the other towns who receives payment, but his entire income is considerably smaller than that received by the same official in Dublin.

The Clerk of the Peace is an office that should be abolished; a select committee of the House of Commons recommended its abolition four years ago. The mayors of all the chief towns in Great Britain perform their duties without pay, and in most instances defray all the expenses of hospitalities, and there is generally little difficulty in getting men to take the office.

The pamphlet before us, speaking of our mayoralty expenses of £4,932, says that this "little bill" might be very safely reduced to £1,500, liberating £3,400 for works of public utility. It ought, as a first act of retrenchment, be reduced down to £1,000, thereby leaving £3,492 for urgent sanitary and other cognate improvements. Why should Dublin be systematically imposed upon by supporting and paying the mayoralty expenses of penurious or impecunious magnates or their attendants? It is all very well to speak in favour of ancient customs; but if customs and pastimes are to be retained for love or sentiment, the expense of preserving them should be paid for by those who are fond of indulging in them.

Is there anything more shameful than the pension list of Dublin, representing a round sum of £3,460, the half of which is paid to men who made way for others, and many of whom are still stout and strong, and healthy enough to perform public labour? With the incubus of mayoralty expenses and officials, and a scandalous pension-list, there need be little wonder expressed why no sanitary work is undertaken or performed, except of the most trivial kind, in this city.

On a former occasion we pointed out the preposterous scale of remuneration adopted for paying the officers in the City Hall. Altogether, the salaries of Town Clerk, Treasurer, Engineer or Surveyor, and subordinates, with office expenses, amounts to £5,705 in this city, and nice crumbs indeed for the labour performed! The Treasurer and his clerks swallow £1,595, and by the permanent consulting Borough Engineer and his efficient staff the modest sum of £1,990 is dragged out of the "City Estate." The Town Clerk and Deputies, Clerks of Committees (less fees of office) are scarcely satisfied at receiving the paltry sum of £2,120.

By referring again to the Borough Balance-sheet we find £50 "advanced as a loan" to the modest Town Clerk in 1870. Well, well! this is indeed a curious item; but the Government Auditor is not likely to drop on a similar entry in future, and so much the better for the officer who signed the cheque!

We have on several occasions pointed out the want of public parks and libraries, and the necessity of opening our public squares for the recreation and health of that body of our citizens who are at a distance from the suburbs, or from the Phoenix Park. We hope yet to see Stephen's-green and all the other squares opened to our working classes. Liverpool pays for public parks and libraries for the use of her people £20,116; Manchester, £15,088; Birmingham, £8,702; Leeds, £6,257; Dublin, £0!!! Enlightened corporators! intelligent representatives! does it not reflect the greatest honour on your character, and bespeak of your high moral tone of feeling and spirit?

For the removal of night soil, less receipts, Liverpool pays £21,460; Manchester, £12,361; Birmingham, £8,290; Leeds, £5,576; Dublin, *nil*—not one penny! No. 1, 2, or 3 Committee cannot afford it! They believe in dirt, and may dirt crown them for the remainder of their days. Is it to be wondered at, after the above, the Corporation, according to one ex-corporator, is not credited with all the *unknown* good it does? It is sufficient for us to know what it leaves undone, as it affords a sure criterion of what it can do and is competent of doing? Dublin, unlike the English cities, has not the management of the police force, the government maintaining that body by a levy of 8d. in the pound and certain carriage and pawnbrokers' licences and dues; and it also retains the fees and fines received at the police courts. With local courts of justice, gaols, lunatic asylums, &c., Liverpool expends £126,373; deducting the receipts from the government, £58,808, leaves £67,565 chargeable to the rates. Manchester expends £87,532; deducting receipts from government, £31,848, leaves £55,684 chargeable to the rates. Birmingham expends £60,974; deducting the receipts from government, £20,532, leaves £40,442 chargeable to the rates. Leeds expends £42,129; deducting receipts from government, £15,738, leaves £26,391 chargeable to the rates. The Corporation of Dublin expends £24,747; prison profits and repayments from the government £5,194, leaving £19,553, proportion of police rate, carriage and pawnbrokers' licences, and licences levied in the borough, making £25,800, bringing up the sum total to £45,353. During two years, prisons' earnings in Dublin amounted to £960, or £480 per annum; while the earnings of prisons in Liverpool in the year was £5,831; Manchester, £3,402; Birmingham, £2,409. The Dublin prisons must indeed be under a beautiful system of industrial management!

While Liverpool pays for roads, paving, sewerage, and scavenging, the sum of £104,912, Dublin for the same work expends £49,997. Though this sum ought to represent some amount of work, there is scarcely anything to be seen. There is one grand item in which the corporate management of Dublin excels any city in the kingdom—"Parliamentary and Law Expenses." Liverpool pays for this £2,893; Manchester, £1,621; Birmingham, £548; Leeds, £1,118; and "dear dirty Dublin"—the second city in the empire—pays no less than £3,073. So fond is the Corporation of Dublin of litigation, that it "indulges in the luxury of two Law Agents."

It is sad and sickening to go into these details, but we are conscious that the labours of men who are at last taking up the good work of Corporate and Sanitary Reform will be rewarded. We will gladly hail any labourers who may enter the field. We never rested for a week from directing public attention to the shameful system of voting public moneys and neglecting vital duties carried on by our local authorities, and we are glad that we have succeeded at last in forcing the matter on the attention of the Government, and that returns have been moved for. We do not expect that the reform will come at once; but the citizens of Dublin, if they have the least spirit and manhood left, will strike a blow at the root of corporate incapacity and extortion at the next ward elections. There are ample re-

sources in this city for effecting a thorough sanitary reform by retrenching the exorbitant salaries paid to officials, many of whom are unfitted for the posts they occupy. When the expenses of "Bumbledom" and "Bungledom" are swept away, and surplus law agents are dispensed with, and the remaining one has his bills taxed, reform will begin. The celebrated Bishop Berkeley suggested a tax upon dirt, for the purpose of making people industrious; but as it is the corporation of a city instead of the people who should remove the dirt, in this instance the infliction is severe enough that has to be borne by the people. A municipal council is no place for political intriguers, sectarian wranglers, commission agents, bill promoters, and canvassers for jobs for home and foreign houses. It is a place for upright, practical and respectable men who wish to serve their fellow men honestly by representing their grievances, promoting the public and general good, by industrial, sanitary, social, and moral objects. Unlimited improvements, instead of unlimited taxation and criminal expenditure, should be the aim of every corporation.

THE IRISH CIVIL SERVICE COMMISSION.

We fear there is every reason for viewing with suspicion the proceedings of the present commission. The enquiry is neither the open straightforward, nor will it be the exhaustive one the public desired. The present cabinet cannot be complimented upon its success in dealing with important Irish interests, even where no politics or religion is in question. O'Connell was wont to say "Blessed are those who expect nothing, for they will never be disappointed." The Irish civil servants will be wonderfully surprised if any modicum of good accrues to them from this long-desired but most unsatisfactory Government enquiry. We regret to say that from its commencement there has been both a want of earnestness and thoroughness exhibited; but then we must not forget it is only an Irish question, and we suppose we ought to feel gratified for the liberal condescension that agreed to the appointment of a commission in any form.

SLOB LAND AT CLONTARF.

The following notice of motion by Mr. Norwood was referred for consideration to Nos. 1 and 3 and the main drainage committees:—

That in order to abate the unsightly nuisance at present existing on that portion of the slob land forming part of the Corporate estate, and situate between the Dublin and Drogheda Railway, the East-road, Annesley Bridge, and the Clontarf-road, and to afford convenient place of deposit for the street scavenger, and enable Committee No. 1 to disuse the present objectionable scavenging depôts in the city, Committee No. 3 be directed to inquire as to the steps necessary to be taken for the reclamation of such portions of said slob land as are not included in the land authorised to be taken under the provisions of the Dublin Main Drainage Acts, with the view of forming said land, or such portion thereof as may be deemed advisable, into a people's park, under the provisions of the several statutes authorising the formation of public parks, and that said committee do report thereon without delay to this council."

"Without delay." How wonderfully smart our magnates grow when the "October ales" are brewing. The people's park, we fear, has a long vista. Talk of reclaiming "slob" land in a hurry. Why our present Corporation have converted, during their disastrous career, the better portion of our city into little short of one expanse of "slob land." It is the city land within the city that requires reclamation first, and "without delay."

THE MERSEY DOCKS EXTENSION.

At a late meeting of the Mersey Docks and Harbour Board, the report of the special committee appointed in the commencement of the year to inquire into the present condition of the Mersey Docks' Estate, with a view to improvement, was read. On a comprehensive view of the general policy of the trust, the special committee recommended the construction of new docks to the north of Canada Dock, at a cost of £2,691,185, which they calculate would meet the requirements of the port at the present rate of increase in trade for the next six and a-half years. These works can be completed in ten years, but would be partially opened as they progressed. Plans of the Huskisson Docks had also been prepared, the construction of which would cost £858,782. The works would require three or four years for completion. Plans of dock extension had also been prepared for the south end of the town; these would cost £1,284,184, and would require six or seven years for construction. The whole of the works would probably be completed in about fourteen years, at a cost of £4,834,051, and they would meet the wants of the port at its present rate of progress for thirteen or fourteen years. Mr. Forwood gave notice that he would move that the whole of the plans be embraced in the scheme. The further consideration of the above scheme was adjourned till the next meeting of the board.

PROFESSOR CAMERON'S LECTURES ON SANITARY SCIENCE.

In his seventh lecture Dr. Cameron treated particularly upon the subject of dress and clothing, and modes of wearing adopted by our ladies at the present time. Many of the observations of the lecturer were pointed and forcible, and all were worthy of serious consideration. In illustrating his subject he produced a series of raw materials used in preparing clothing, and an immense variety of articles of clothing and textile fabrics, in which the excellences and defects of costume were exhibited. Much amusement was excited by a series of bonnets dating from 1770 to 1872, which, beginning with the huge head-dress worn at the former period, gradually, like a vanishing line in perspective, dwindled into the tiny so-called bonnet of the period. The relative values of the different clothing materials as bad conductors of heat and as absorbent of moisture from the skin were explained. Fine wool worn next the skin was the most healthful underclothing, as it absorbed the perspiration in summer, and prevented chills. India-rubber clothing should be worn as seldom as possible, and as loose as possible, but it was the best protection against wind and rain, as was also leather. The evils of ill-fitting and tight garments were expatiated upon at great length. It was shewn on physiological and æsthetical grounds that extremely small waists should not be admired, and were unnatural, and unbecoming, and injurious. The harmony of the proportions of the human body was shown to be incompatible with the desire to have the waist and feet exceedingly small. The practice of exposing children to cold, without being warmly clad, was shown to be productive of a large amount of disease, and cold was shown to be a potent factor in the winter's mortality tables. Many lives and much suffering might, the lecturer said, be saved by a liberal use of flannel. References were made to pictures and statues of Greek women, exhibited to show the beauty and healthy development of their forms, and the proper mode in which their garments were worn—dependent from the shoulders, and merely confined by a cincture round the waist. A remarkable collection of boots and shoes was exhibited, including a lady's boot with a heel three inches long. The skeleton of a man and monkey were exhibited for the purpose of showing that the former should walk on his heels, the

latter on its toes. Ladies with high-heeled boots walked on their toes like monkeys. The model of a perfect human foot was shown, and contrasted with plaster casts of feet showing all kinds of distortions from tight boots. The lecturer said that the most beautiful lady present had her toes distorted, and that all who wore tight shoes had deformed feet. A proper shoe should have a wide toe, low broad heel, and be neither too loose nor too tight.

The learned professor's eighth lecture related chiefly to exercise. The muscles grow when exercised, and waste and soften when disused. The heart and lungs, being muscles, expand and improve under proper physical exercise. Inactivity leads to an undue accumulation of carbonaceous matter in the system, and the heart and other muscles become thereby affected with fatty degeneration. On the other hand, too severe or badly-regulated exercise is injurious to the muscles, and often occasions serious and even fatal lesions. Many persons injure themselves by passing abruptly from a state of inactivity to that of violent and prolonged exercise. One should very gradually accustom himself to long walking, rowing, or other severe exercise. The advantages of exercise to females of the middle and upper classes was strongly insisted upon as a means of improving not merely their health but strength. A great variety of valuable information was given relative to special forms of exercise.

BOOKS RECEIVED.

Brief Sketches of the Parishes of Booterstown and Donnybrook, Co. Dublin. By the Rev. B. H. Blacker, M.A. Third Part. Dublin: George Herbert.

THE first and second parts of these "Sketches" were favourably noticed in our columns some years ago. The third, now on our table, will be found no less interesting to the general reader than those which preceded it. The reverend author (or compiler, as he very modestly styles himself) appears not to have wearied in the very laudable task he set before him. The jottings of historical and archaeological lore presented to the reader in these "Brief Sketches" cannot fail to convince him that the author has taken no small pains in collecting them from various sources (which he takes peculiar care to acknowledge). To this part, we may add, there are appended no less than sixteen pages containing "Opinions of the Press" on Parts I. and II., which, we are told in a prefatory note, "faithfully represent the sentiments of the respective writers." We hope so.

Messrs. Partridge and Co., London, have issued four new cheap and useful almanacs, embellished with wood engravings in the highest style of art. They are: "The British Workman," "The Band of Hope," "The Animals' Friend," in broadsheet style; the fourth is styled "Everyone's Almanac," and contains sixteen pages 4to. As a frontispiece to the current number of "The Family Friend" is given an engraving of "Mr. Stanley, in the dress he wore when he met Dr. Livingstone in Africa." Such marvellous penny's-worth must doubtless secure thousands of readers.

DUBLIN SANITARY ASSOCIATION.

At a late meeting of the above body, the Sub-committee of Inspection brought up their report, a copy of which was ordered to be furnished to the secretary of the Public Health Committee. The following is an extract in relation to the state of matters in that rather historic locality, not inaptly bearing the name of "Mud Island":—

"6 Spring Garden-lane—Five cases of typhoid fever at present in hospital out of a family of nine

persons. Another case of the same form of fever proved fatal some weeks ago. The cottage is now kept scrupulously clean, and has been very recently whitewashed. The yard in the rear is dirty. In a small bedroom all the family used to sleep, but the door leading into the kitchen was generally kept open. The dimensions of the bedroom are 8 ft. 8 in. by 8 ft. 8½ in. by 13 ft. The cubical space per head was, therefore, only about 120 cubic feet.

2 Spring Garden-lane—Case of fever three months ago. House very poor; yard dirty, abutting on a most filthy furnace yard at No. 17 Spring Garden-street.

17 Spring Garden-street—Has a yard with pig-stye and cattle sheds; several large collections of manure, pools of foul water, &c. Level higher than that of 2 Spring Garden-lane.

All the cottages in this neighbourhood look rather dilapidated, and in general have dirty rerres, with collections of manure. The ground is popularly called 'Mud Island,' and is situated at a very low level."

Alfred Baker, Esq., president of the British Medical Association, was, on the motion of Dr. C. F. Moore, unanimously elected an honorary member of the association.

A letter was received from Mr. Boyle, secretary to Public Health Committee, acknowledging a list of nuisances reported by this committee on the 17th inst., and stating that all the nuisances complained of had been referred to the proper officers for inspection.

Who, may we ask, are the "proper officers" in our Corporation, and if there be such what are their proper duties, and have they ever been known yet properly or efficiently to perform them? The Sanitary Association is entitled to credit for some of the useful work it has performed. What a reflection it is on our local body that a Sanitary Association should be found necessary to raise funds and perform the duties of a voluntary inspector of the foul places of our city. The city is overburdened with taxes, and yet the poor are allowed to rot out their lives in filth, to the eternal disgrace of the present municipal representation of our citizens.

BLACKROCK TOWNSHIP.

At the annual meeting of the Blackrock Township Commissioners, the report for the year ending 31st August last was read. The commissioners, we believe, are performing to the best of their ability their sanitary duties, but some more active work is required before Blackrock can be congratulated upon its success. Some useful work has, however, been performed.

The report stated that during the year just gone by the valuation of the township had increased by £1,665, and a further increase of about £3,650 had been made in the value placed upon that portion of the Dublin and Kingstown Railway lying within the township, thus bringing the entire valuation up to about £46,380, being an increase since its formation in 1863 of nearly £11,500. The county charges for the present year amounted to £1,032. The cost of lighting 222 public lamps by meter had been diminished by about £266 compared with the former system. The Vartny water supply continued to give general satisfaction, and had contributed greatly to the health and cleanliness of the township. To the attention paid to the strict carrying out of the sanitary regulations had been owing, under Providence, the general good health which the township had enjoyed during the past trying year. The subject of the main drainage had engaged the anxious consideration of the commissioners, who had struck a 3d. rate to cover the necessary expenses to be incurred this year in carrying out the object for which the plans and estimates had been carefully prepared. The board had also struck a 2d. rate for the purpose of abating the nuisance in the slob lands, so generally complained of, and all legal and other necessary steps to convert the slob lands into a people's park will now be pushed forward without delay. The statement of accounts showed that the lighting and general works during the year had cost about £3,600; drainage, about £100; sanitary expenses, £150; water supply, £800; and various other sums for different purposes, bringing the outlay up to £5,700 in all. The contract of the Gas Company was stated to be at 4s. 6d. per 1,000 cubic feet for the supply of gas for the public lamps. Two new public fountains had been generously erected, free of expense to the township, by the Humane Society.

NOTES ON THE ECCLESIASTICAL
ARCHITECTURE OF IRELAND.BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A., SCOT.

CASHEL.

CASHEL is an ancient archiepiscopal city in the County of Tipperary and Province of Munster; it was formerly a place of considerable importance, as we find by the numerous references to it in our civil and ecclesiastical annals. According to the *Book of Rights* (p. 28), the ancient name of this place was Sidh-Dhrum, i.e., fairy hill. Dr. O'Donovan seems to think that the name was changed by Corc, a celebrated king of Munster, who erected a circular stone fort or *Caiseal* (Cashel) on the rock; there are numerous places in Ireland bearing the same name. The compilers of the *Leabhar-na-g-Ceart* (Book of Rights) gives the derivation of the name from "*cais-il*, i.e., a stone on which they used to lay down pledges, or *cis-aíl*, i.e., a payment of tribute, from the tribute given to it by the men of Eire."—(p. 28.)

Corc, the son of Lughaid, whose name is thus identified with the early history of Cashel, was king of Munster in the latter part of the fourth century. His exact time is not given in our annals; but, as the learned translator of the *Book of Rights* states, we can form a pretty correct idea from the fact that his grandson, Aenghus Mac Nadfraech, was slain in A.D. 489. This Aenghus appears to have been the first christian king of Munster. The *Tripartite Life* of the saint contains the legend of his conversion. In A.D. 832 we are informed that "a great number of the family of Cluain-Mic-Nois were slain by Feidhlimidh, son of Cruimthan, King of Cashel, and all their termon was burned by him to the door of the church. In like manner did he treat the family of Dearnhach also, to the door of its church."—(*Four Masters*.) This is the first reference to Cashel in these annals. In A.D. 846, Olchobar, King of Munster, defeated the Danes at Sciath Neachtain, killing Tomar, heir apparent of the King of Lochlanu, and twelve hundred Danes. The *Four Masters*, at this date, record another defeat of the Northmen by the Eoghanacht-Caisil, wherein five hundred of the former were slain, after which a hosting was made by Olchobar to demolish the fort of Corcagh, then held by the invaders. Olchobar, King of Munster, whose regal seat was at Cashel, appears to have been a sore thorn in the sides of the Danes; his death is recorded at A.D. 849.

One of the most remarkable personages historically connected with Cashel was Cormac-Mac Cullinean, king and bishop, uniting in his own person the regal and ecclesiastical dignities. This was not an unusual circumstance in remote times, as we find by a preceding annal, A.D. 870, where is recorded the death of Cinfeladh O'Mochtighern, lord of Cashel, who also had been abbot of Imleach-Jubhair (Emly). Cormac appears to have been a prince of eminent abilities, and a great encourager of learning. He had, however, the taint of worldly ambition, and was as ready for a foray into his neighbours' territories as any merely secular chieftain. The *Four Masters*, at A.D. 902, record two of these expeditions, one into Leinster, the other into Connaught, in both of which he was successful. In the following year he organized another expedition into Leinster, the result of which is thus given by the annalists:—"The battle of Bealach-Mughua (was fought) by Flann, son of Mael-seachlainn, King of Ireland, and Cearbhall, son of Muiregan, King of Leinster, and by Cathal, son of Conchobhar, King of Connaught, against Cormac, son of Cuileannan, King of Caiseal. The battle was gained over Cormac, and he himself was slain, though his loss was mournful, for he was a king, a bishop, an anchorite, a scribe, and profoundly learned in the Scotie tongue." The annal further

states that, besides many nobles of distinction, there fell six thousand men of the army of Munster, and that Cormac was beleaded by Fiach Ua Ugfaden, of Denlis. This event is given in the *Chronicon Scotorum* almost in the same words, under the year 907. Cormac was the compiler of an ancient Gaelic glossary known as *Sanasan Chormaic*; he is reputed to have been the author of the *Psalter of Cashel*, though Connell Mageoghagan, in his dedication of the *Annals of Clonmacnoise*, ascribes it to the age of Brian Borumha (see introduction to *Leabhar-na-g-Ceart*, p. xxiii). The battle in which this monarch lost his life was fought at Bealach-Mughua, i.e., the pass or road of Mughain, now known as Ballymoon, in the County of Kildare, about three miles from Carlow.

Of the same age was another remarkable king of Munster, known in the annals as Ceallachan Caisil. He was the ancestor of the O'Callaghans, McCarthys, and O'Keefes. His short reign was a constant scene of turbulent warfare, principally against his own countrymen, in which he did not spare either church or cleric. The first notice of his reign by the *Four Masters* is at A.D. 934:—"Cluain-Mic-Nois was plundered by the foreigners (Danes) of Atheliath (Dublin); and it was plundered again by Ceallachan Caisil and the men of Munster." In 937 we find him consorting with the Danes against his own countrymen, as follows:—"Ceallachan, King of Caiseal, with the men of Munster, and Macca Cuinn, with the foreigners of Port-Lairge (Danes of Waterford), went into Meath and seized upon a great prey, and took the spoils and prisoners of Cill-eidhneach and Cill-achaidh, and took their two abbots."—(*Ann. Four Masters*.) In the following year he made an inroad on Ossory:—"A great slaughter was made of the Osraighi by Ceallachan, King of Caiseal."—(*Ibid.*) The following year (A.D. 939) was an eventful one in his life. Murkertach Mac Neill, King of Ulster, projected an invasion of the south, and, accompanied by a great army, he marched into Leinster, and, devastating the country, received the submission of the Osraighi and Desii (the people of Kilkenny and Waterford); immediately after which he invaded the Hebrides with a large fleet, and carried off from thence much plunder. While absent on this expedition, Ceallachan, who had been exasperated against the Ossorians and Desii for their submission to the northern chief, made an invasion of their country. The events following are pithily given by the *Four Masters*, and, as a sample of Irish history at this remote period, are worth quoting:—"A slaughter was made of the Desii by Ceallachan and the men of Munster, because they had submitted to Muirheartach, son of Niall; and he slew two thousand of them, together with Ceileachair, son of Cormac; Maelgoun, son of Gibhleachain; Seghda, son of Noebelan; Cleireach, son of Sesta, &c. Another battle was gained by the Desii and the Osraighi over the King of Caiseal, where many were slain. Muirheartach afterwards assembled the Cinel-Connaill and Cinel-Eoghain, and the people of the North in general, at Oileach, where he selected ten hundred of the chosen heroes, and made a circuit of Ireland, keeping his left hand to the sea, until he arrived at Atheliath (Dublin); and he brought Sitric, lord of Atheliath, with him as a hostage. He afterwards proceeded into Leinster, and the Leinster men began to oppose him, but finally agreed to submit to him, and he carried Lorcan, King of Leinster, with him. He then went to the men of Munster, who were in readiness on his arrival to give him battle; but they ultimately resolved to give up (their king) Ceallachan, and a fetter was put upon him by Muirheartach. He afterwards proceeded into Connaught, where Conchobhar, son of Tadhg, came to meet him, but no gyve or lock was put upon him. He then returned to Oileach, carrying these kings with him as hostages, and they were for nine months feasting there, and at the end of that time he sent the hostages to Donnchadh, because it was he that was at Teamhair (Tara), and the sovereignty had come to him." Con-

cerning the carrying away of Ceallachan, the following quatrain was composed:—

"Muirheartach went to the South,
To the beautiful chalk-white Caiseal;
And he brought with him Ceallachan of
troops,
He did not accept of any other hostage
for him."

Murkertach was a remarkable man in his day. He defended his principality against the inroads of the Danes, defeating them in many battles. He aspired to the throne of Ireland, and, in accordance with the policy of the times, he determined to secure hostages from the leading chiefs, in order to insure their support, or to render them neutral. To this end he selected one thousand chosen troops, and in midwinter set out on his famous "Circuit." To protect his soldiers from the inclemency of the weather, he provided them with mantles of leather: hence he is known as Murkertach of the Leather Cloaks. His stratagem was successful; taken by surprise, their soldiers disbanded and in winter quarters, the provincial chiefs were led into captivity, as I have already shewn. An account of this expedition is extant, being the subject of a poem by Cormacan Eigeas, a northern bard attached to the court of Murkertach, and who appears to have been an eye-witness of the transactions he narrates. Copies of this poem are to be found in the *Book of Invasions*, and in the *Genealogical Book of the O'Clerys*, MSS. preserved in the library of the Royal Irish Academy. It has been translated by the late Dr. O'Donovan, and is to be found in the first volume of *Tracts Relating to Ireland*, published by the Irish Archaeological Society. The account given by the *Four Masters* and other contemporary authorities of the generous and princely treatment of his captives by Murkertach, is strangely at variance with the ideas of Irish fierceness and savagery so very generally believed in, not only by foreigners, but also by a certain class of native writers; and I do not consider it quite out of place to give the quaint description by Cormacan Eigeas of the return of the victorious chief and his princely captives to Aileach, the noble seat of the kings of Ulster of the Hy Niall race:—

"On the morrow we reached our home to
drink the goblets;
There was noise of rejoicing with glory,
In thy great house O Muirheartach.
From the green Lochan na n-each
A page was dispatched to Aileach
To tell Dubhdairé* of the black hair,
To send women to cut green rushes.†
'Rise up O Dubhdairé' (spake the page),
'Here is company coming to thy house,
Attend each mau of them
As a monarch should be attended.'
'Tell to me' (she answered), what company
comes hither,
To the lordly Aileach-Rigreann,
Tell me O fair page,
That I may attend them."
'The Kings of Erin in fetters' (he replies),
'With Muirheartach son of warlike Niall,
Ten hundred heroes of distinguished
valour
Of the race of the fair Eoghan.'
The son of the living God was pleased
With Muirheartach the son of Niall;
Long in possession of the sovereignty of
Banba‡
Be the descendant of Niall Frassach, the
most valiant.
The noble kings were attended
According to the pleasure of the race of
Niall,
Without sorrow, without gloom in the
house,
As if they had been clerics.
Ten score hogs—no small work,—
Ten score cows, two hundred oxen,
Were slaughtered at the festive Aileach,
For Muirheartach of the great fetters.

* Dubhdairé was Muirheartach's queen, and daughter of the King of Ossory.

† Green rushes was the ordinary carpeting of the halls of castles and great houses in the middle ages.

‡ Banba, a bardic name for Ireland.

Three score vats of curds,
Which banished the hungry look of the
army,
With a sufficiency of cheering mead
Were given by the magnanimous Muir-
cheartach.

Twelve vats of choice mead
Were given to the kings of Erin,
The dinner of a hundred of each kind of
food, nobly,
Was given gratuitously to them from the
Queen.

Sabia* of Ballagh-Gabhran district of glens,
Has surpassed the women of Erin,
In chastity, in wisdom, in purity,
In giving, in bestowing.

The blessing of every man with a tongue
Be on the good, great daughter of Kellach;
And the blessing of the pure glorious
Christ

Be on the daughter of the King of Ossory.
I have not seen in south or north,
Throughout all Erin of red weapons,
I have not seen in west or east
A woman like thy wife O Muircheartaeh.

While the kings of battles were detained
In the lordly Aileach Frigreann,
They received no coignet from any one
else

Except from the good Dubhdairé the
black-haired."

This brave chieftain fell in a battle fought against the Danes near Ardee, County of Louth, as is recorded in the *Four Masters* at A.D. 941 (*recte*, 943). Ceallachan having been freed from his bondage, appears to have returned to his old habits of plundering his neighbours, as we find at A.D. 942 (*recte*, 944) a record of a victory gained by him over Lorcan, son of Kennedy. In A.D. 949, while the Danes were plundering the churches of Meath, this degenerate Gaedhil was doing the same in Connaught, as is thus recorded:—"Godfrey, son of Sitric, with the foreigners (Danes) of Athcliath (Dublin), plundered Ceannanus (Kells), Domhnach-Padrig (Donoughmore), Ard-Breacan, Tulan, Disert-Chiaran (Seir-Keiran), Cill-Scire, and other churches (of Meath) in like manner, but it was out of Ceannanus they were all plundered. They carried upwards of three thousand persons with them into captivity, besides gold, silver, raiment, and various wealth, and goods of every description. The spoiling of Sil-Aumchadha and the plundering of Cluainfearta-Brennain by Ceallachan and the men of Munster. The plundering of Dealbhná-Beathra by the same party, and the Daimhliag (stone church) of Gailline was burned by them."—(*Ann. Four Mast.*)

Here we have a melancholy and humiliating picture of foreign rapine and domestic treachery. Is it not a wonder that any relic or monument of the past remains in the country? Had Ceallachan joined his forces with those of the patriotic Murkertach, they could have swept these pirates out of the kingdom, but a miserable jealousy made them enemies in the presence of the foreigners. So it ever has been, and so, I fear, it ever will be. Strange to say, this fierce and ruthless oppressor of his own countrymen died a natural death—a boon attained by few Irish kings in those ages. His obit is simply recorded in the *Ann. Four Mast.* at A.D. 952 (*recte*, 954), without any remark. The Ven. Charles O'Connor, in his *Dissertations on the History of Ireland*, has drawn an admirable parallel between the characters of Murkertach, Mac Neill, and Ceallachan Caiseal.—(p. 248.)

Among many notices of this place in the *Annals of the Four Masters*, the following are of most interest:—A.D. 1090.—"A great meeting took place between Domhnall, the son of Mac Lochlainn, King of Aileach, and Murchearthach Ua Briain, King of Caiseal, and Domhnall, son of Flann Ua Maeleachlainn, lord of Meath, and Ruaidhri Ua Conchobhair, King of Connaught, and they all

delivered hostages to the King of Aileach, and they parted in peace and tranquillity." A.D. 1091.—"Cinaceth Ua Mordha, lord of Laeighis, and the son of Maclnuamah, son of Cucoirne, mutually fell by each other in the house of Ua Briain, at Caiseal." A.D. 1101.—"A meeting of Leath-Mogha was held at Caiseal, by Murchearthach Ua Briain, with the chiefs of the laity, and Ua Dunain, noble bishop and chief senior, with the chiefs of the clergy; and on this occasion Muircheartach Ua Briain made a grant such as no king had ever made before, namely, he granted Caiseal of the Kings to religious without any claim of laymen or clergymen on it, but the religious of Ireland in general."

It is difficult to ascertain from the foregoing what was the exact nature of this grant. In all probability it referred to the giving up for religious purposes entirely the Rock, which had hitherto been the regal seat of the kings of Cashel, and lands adjoining the same, for the support of the church. It was after this grant was made that the church known as Cormac's Chapel was commenced.

A.D. 1124.—"Tadhg Mac Carthaigh, lord of Desmond, the ornament of Munster, died, after penance, at Caiseal." A.D. 1126.—"An army was led by Toirdhealbhaich Ua Conchobhair, and he gave the kingdom of Ath-cliaith and Leinster to his own son, Conchobhair; he afterwards proceeded (to the south), and defeated Cormac Mac Carthaigh, and burned his camp at Sliabh-an-Caithligh."

A.D. 1127.—"An army was led by Toirdhealbhaich Ua Conchobhair, by sea and land, until he reached Corcach-Mor, in Munster, and he drove Cormac to Lis-mor, and divided Munster into three parts, and he carried off hostages from Munster. Donchadh, the son of Mac Carthaigh, was afterwards expelled into Connaught with two thousand along with him, by Cormac Mac Carthaigh after returning from his pilgrimage." A.D. 1133.—"An army was led by Cormac Mac Carthaigh and Conchobhair Ua Briain into Connaught; and they killed Cathal, son of Cathal Ua Conchobhair, royal heir of Connaught, and Gillana-Naemh Ua Floinn, chief of Sil-Mailearuain, and they demolished Dun-Mughdorn and Dun-Mor, and plundered a great part of the country." A.D. 1134.—"A church which was erected by Cormac, grandson of Carthaigh, King of Caiseal, was consecrated by a synod of the clergy, assembled in one place."

This is the church known as Cormac's Chapel, by some ascribed to Cormac Mac Cullenain, but without a shadow of evidence, and contrary to the architectural features of the edifice, which exist nearly in a perfect state. The *Annals of Innisfallen* record the same event under the same date, A.D. 1134.—"The consecration of the church of Cormac Mac Carthy, at Cashel, by the archbishop and bishops of Munster, and the magnates of Ireland, both lay and ecclesiastical." Under the same date the consecration of this church is given in the *Annals of Boyle*.

Cormac, under whose auspices this church was erected, appears to have been a remarkable personage. He was king of Desmond or South Munster, of which Cashel was the capital. He was the son of Muredach, son of Cartach, son of Saorbreathach, son of Donough, son of Ceallachan Cashel. He ascended the throne of South Munster on the death of his brother Donagh, in A.D. 1123. Torelach O'Connor, King of Connaught at this period, aimed at the sovereignty of Ireland, and, having strengthened himself by alliances, he endeavoured to subdue those of the provincial kings who were opposed to his pretensions; among the most formidable of these was Cormac Mac Carthy. In A.D. 1124 he came down the Shannon from Lough Derg with a great fleet, and, conveying his vessels over the Falls of Doonass, he went down the river, and, landing his troops, plundered the County of Limerick as far as Foynes Island, capturing the fleet of Desmond. In the same year he cruelly put to death the hostages of Munster who were in his hands, among whom

was a son of Cormac.

Munster, defeated Cormac and burned his camp, and devastated all Munster as far as Glanmire, near Cork. In 1127 he again invaded Munster by sea and land until he reached Cork, drove Cormac into exile, divided Munster into three chieftainries, and carried off thirty hostages. In the latter end of the same year Cormac returned to his own kingdom, and was received by his former subjects, who expelled the Connacians, Torelac being engaged in hostilities with Ulster and Leinster. In 1128, by the intervention of Ccallach, Archbishop of Armagh, a year's peace was made between Torelac and Cormac. In 1130, the truce being out, the former again invaded Munster by sea, and devastated Valentia and the coast of Kerry. In 1131 he again invaded Cormac's kingdom, and plundered and burned the country now known as the baronies of Upper and Lower Connelloe, County Limerick. In the same year Cormac and Connor O'Brien made a successful expedition into Thomond, then in league with Torelac. In 1132 Torelac made another raid into Munster, but was defeated with immense slaughter, when Conor O'Flaherty, lord of West Connaught, the two sons of Cathal O'Mughroin, and many other distinguished chiefs were slain. In 1133 Cormac Mac Carthy had his great revenge, as in that year he led a powerful army into Connaught (as I have already quoted from the *Four Masters*), killed Cathal O'Connor, the heir apparent, and other great chiefs, and destroyed several fortresses.

In 1136 Cormac's great adversary, Torelac O'Connor, deprived his own son Aedh of his sight—a barbarous custom of frequent occurrence in the early history of our island. In 1137 Cormac was engaged in a predatory expedition against Kennedy O'Brien and the Danes of Limerick, and in 1138 he was assassinated in his own palace at Cashel, as narrated by the *Four Masters*:—A.D. 1138.—"Cormac, son of Muireadhach, son of Carthach, King of Desmond, and bishop of the kings of Ireland for bestowal of jewels and wealth upon the clergy and churches, an improver of territories and churches, was killed in his own house by treachery, by Toirdealbhach, son of Diarmid Ua Briain, and by the two sons of O'Conchobhair Ciarraige." The *Annals of Innisfallen*, under the same date, give the following account of this transaction:—"Cormac, son of Muircheartach, son of Carthach, son of Saorbreathach, son of Donough, son of Ceallachan Cashel, King of Desmond, and a man who had continual contention for the sovereignty of the entire province of Munster, and the most pious, most brave, and most liberal of victuals and clothings, after having built the church called *Teampull Chornaic*, in Cashel, and two churches in Lismore, was treacherously murdered by Dermot Sugach O'Connor Kerry, at the instigation of Turlough O'Brien, who was his own son-in-law, gossip, and foster-child." This statement is decisive of the fact of this church having been erected by Cormac Mac Carthy, and of it having been named after him, and not after Cormac-Mac-Cullenann. His death is also recorded in the *Annals of Kilronan*. Thus ignominiously perished this remarkable man, whose life was a series of vicissitudes.

I have thought it pertinent to the subject in hand to give this short summary of the regal life and acts of this monarch, whose munificence and love of art are shewn in the beautiful and unique temple which he caused to be erected on the Rock of Cashel; few monarchs of these islands have left such a memorial after them. Though of small dimensions, it is the most remarkable christian edifice in Europe,—in the ingenuity of its construction, the variety and beauty of its ornaments, and the excellence of its masonry. Had this edifice been in any other country but Ireland it would have been illustrated and photographed over and over again, and volumes written descriptive of it. The plans and section given on accompanying lithograph shew the arrangement and construction of this interesting building, which I shall next proceed to describe.

* Sabia.—Dr. O'Donovan remarks that she was in all probability the mother of Dubhdara, Queen of Aileach.

† Coigne, subsistence.

THE AUTUMN MUNICIPAL MANŒUVRES.

CORPORATE REFORM.

ABOUT the end of October or the beginning of November each year certain civic worthies and their colleagues on the Press grow wonderfully affable, courteous, and disinterested. Some of them even commence to condemn their own acts during the previous year, and confess that the citizens of Dublin have, after all, much to complain of in the way of municipal neglect and excessive taxation. Apologies are made and promises given that things will be better managed in future. This, of course, is only another example of the well-known election dodge. We have nothing to do with the politics or the religious views of the members of the Dublin Corporation, though for the credit and honour of this city we wish from our heart that these matters were entirely exorcised from our Town Council meetings. Our object in constantly directing public attention to corporate abuses is for the purpose of leading to Corporate Reform.

In the question of Corporate Reform is embraced a great deal of what vitally affects our citizens,—respectable and efficient representation, public improvements, sanitary administration with a view to public health and the stamping out of disease, retrenchment of civic expenditure, reduction of our excessive local taxation, and sundry other urgent matters which are obvious to all our intelligent citizens. To effect the above objects, a change is absolutely required in the composition of our representation. The majority of our present town councillors are years in office, but how many of them can point to any efficient service done the city, either in their corporate or individual capacity? In fact, it is well known, and it is spoken of in public places in this city every other day, that the majority of the members of our present Corporation are unfit, from want of practical intelligence as well as objectionable from their political and sectarian proclivities (so often openly exhibited), to be members of our municipal body, or of any public body elected to perform duties in a similar manner to the Corporation. We desire to speak plainly on the matter, because it becomes imperatively necessary that a change in our municipal representation should take place immediately.

We would seriously and honestly advise the burgesses of this city to weigh well the power that they hold in their hands, and in the coming ward elections not to be led away by the specious pretexts of municipal canvassers or agents of the old school, or the stump editorials of fossil "liberal" organs, who are ever liberal with their advice when they wish to serve themselves or their friends. It is time that some of our present municipal worthies should be relegated to their own firesides, or to the dust of their own warehouses. They have served this city long and badly, and in growing aged have grown worse. Mendacity has been added to meanness and incapacity on the part of not a few, and consequently the present municipal body of Dublin has been for a considerable period viewed with a certain loathing and disgust by Irishmen at home and Englishmen abroad.

Let an earnest and honest attempt be made this autumn to reform our municipal representation, by electing practical and respectable gentlemen, no matter what trade or profession they may belong to. Those

who have long experience and have resided in this city for many years would perhaps be the most eligible. No doubt there will, notwithstanding the law, be indirect inducements held out, and modes of bribery and "treating" carried on. It is not many months since we had a beautiful illustration of how compacts were entered into for securing the election of a representative who ought never to have sat, if he valued his reputation. Similar compacts will be entered into again during the forthcoming elections, and a certain section of our pliant Press will be found capable of stooping to any form of advocacy that best pays. If an earnest movement is not made on the present occasion to return honourable and efficient representatives, gross abuses will still continue to be perpetrated. The Gas Question, the Main Drainage Question, the People's Park Question, the Water Question, and all those other popular questions can be attended to quite as well, and even far better, by a new class of representatives, than by the majority of the old ones, who show themselves always "desperately" in earnest on popular projects, on the eve of elections. It is always quite easy to write and talk on matters that will please a certain portion of the public. This is what some of our representatives and their friends on the Press are doing now, for the purpose of throwing dust in the eyes of those who will not think for themselves.

"Corporate Reform" is the question that should be kept before the eyes of our citizens, and they should understand at once that Corporate Reform cannot be effected in this city until a considerable amount of new blood is infused into our Municipal Council, by the election of a number of honest, respectable, and practical representatives.

THE ORIGIN OF THE ROUND TOWERS.

(From the Ogham of Ollamh Fodhla.)

When Gobhan Saer was Architect
In early days in Erin,
He built those Pillar Towers erect,
His name and genius bearing.
He crowned their summits with a tail—
A fool's-cap fitting muzzle.—
To make the riddle for the Gael
One everlasting puzzle.

Killgobbin.

CE.

IRISH MARBLES— MESSRS. SIBTHORPE'S WORKS.

We would direct the attention of English and Scotch as well as native architects to the subject of Irish marble—its beauty, its durability, and its comparative cheapness. Whatever taste or fancy may desire as to shade or colour, Irish quarries can supply, and there are facilities for supplying it without any loss of time—an advantage that has not always existed in the Irish marble trade. The specimens of Galway marble, and of the marbles of other Irish districts, that may be seen at Messrs. Sibthorpe's works in this city, cannot be excelled within or without the island. Without taking our recommendation, we would ask those who really desire to see and obtain a supply of native marble, to pay a visit to the above establishment at Great Brunswick-street, where they will see the various processes through which the preparation of marble for building and ornamental purposes pass, under the action of machinery and manual labour. From rough-hewn block to simple slab, and from slab to column and capital, from rough working to polishing,

through all branches native marble is now passed, and can be had direct from Dublin to any part of the three kingdoms or the continent. It ought to be a pleasure to our citizens to have such a marble manufactory in their midst, developing a native trade and affording constant employment to many of our skilled craftsmen and artists throughout the year.

PROPOSED IMPROVEMENTS IN KINGSTOWN.

It is proposed to obtain parliamentary powers for constructing an efficient system of sewerage for this important township. In the carrying out of a system of intercepting and connecting sewers vast good will be achieved for the health of the locality. Whether the main drainage of Kingstown be a sort of a continuation of our city main drainage or not, there is no reason why the faults of that system should be copied. We hear that some eminent engineers have been consulted, and that it is proposed to send the sewage into the sea, where, we are told, it will be removed by the force of the currents. Will the Kingstown Commissioners take advice in time, and utterly reject any sewerage system ending by casting the valuable sewage of their district, and consequently the adjoining districts, into the sea? Let the sewage be utilised, and, by doing so, a profit will accrue to the township. If the irrigation method cannot be carried out in a feasible manner in Kingstown, there are other methods for the utilisation of the sewage which can be resorted to. It is nothing less than criminal to perpetrate such a system as that which we hear has been proposed.

There are other improvements spoken of as likely to be carried out at Kingstown. The erection of a suitable town hall, combined with which there can be a court-house for quarter sessions, obviating the necessity of the wants of that district being administered to at Kilmainham. In conjunction with the above there can, of course, be minor courts, or independent ones. In any case, there are more suitable post office, telegraph offices, assembly-rooms, and public courts required. One large block of buildings could possibly be erected in the most central part of the township, which would meet all requirements for many years to come. Let a good beginning be made in a sanitary direction, and other improvements will follow and form a fitting sequel.

NEW IRISH RAILWAY PROJECTS.

THE construction of a railway between Enniskillen and Sligo has been proposed, and seems to have met with some degree of support, but to what extent we are not informed. The total length of the line will be over 40 miles, and the cost of the survey and the passing of the bill are estimated at £6,000. The probability is that it will exceed £10,000, or more, as oppositions will likely have to be encountered. At a meeting held last week at Manorbhamilton, Mr. Loftus Tottenham presided, and we learn that it was resolved to request the grand juries through whose counties the line will pass to guarantee the interest of 5 per cent. on £100,000.

Another railway is projected from New-castle to Tralee, opening up north Kerry, with a subsidiary tramway from Listowel to Ballybunion. The whole line will be forty-two miles long, and the cost, including building of stations and purchase of land, is estimated at about £6,000 a mile.

With one or two exceptions, our Irish railway lines are not very profitable enterprises, nor are they worked in the manner they ought to be. If the Government should on an early day purchase the Irish railway lines, these new projects—if they ever become a reality under their present projection—may turn out an advantageous speculation.

We fail to see at present what great degree

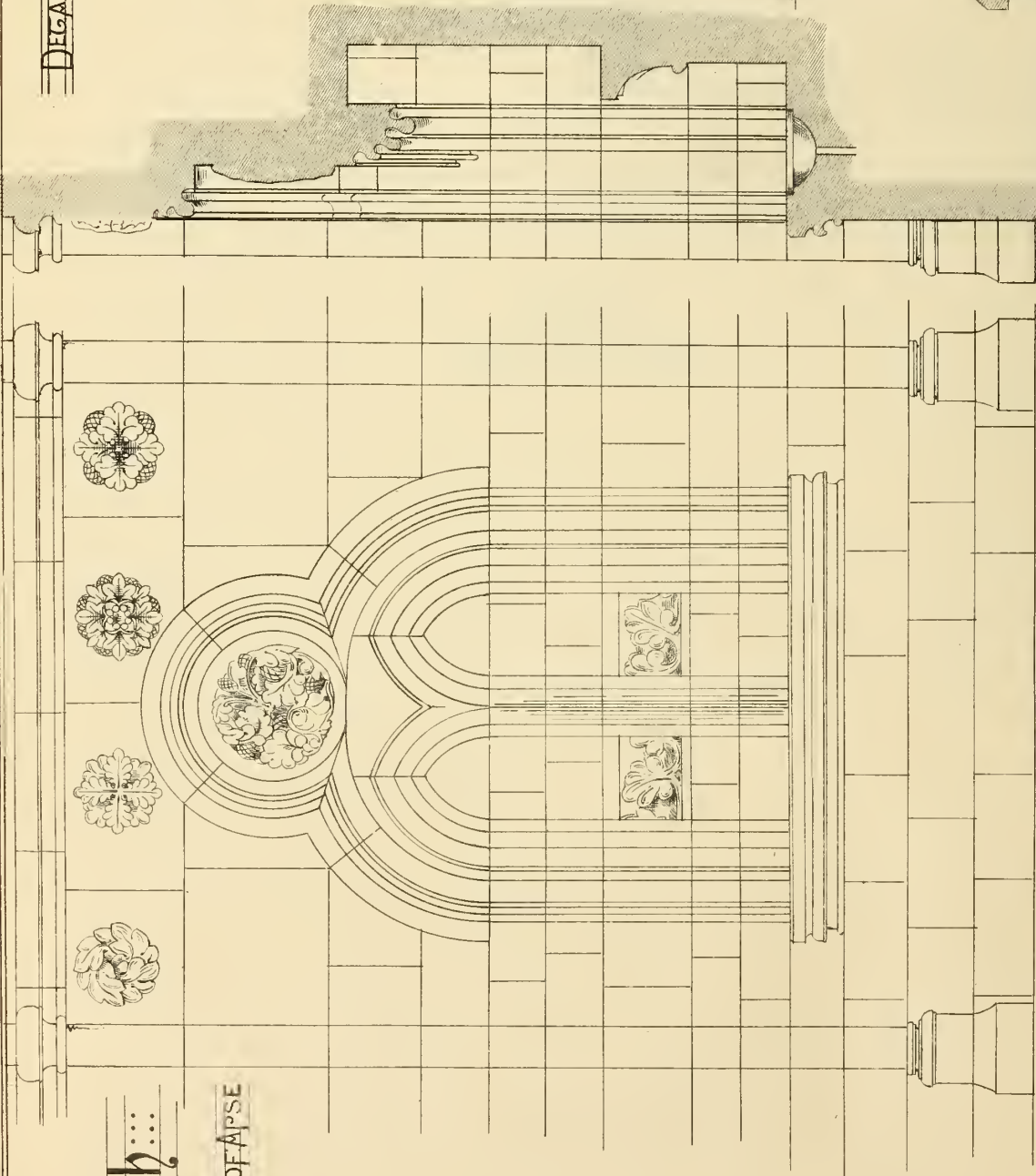
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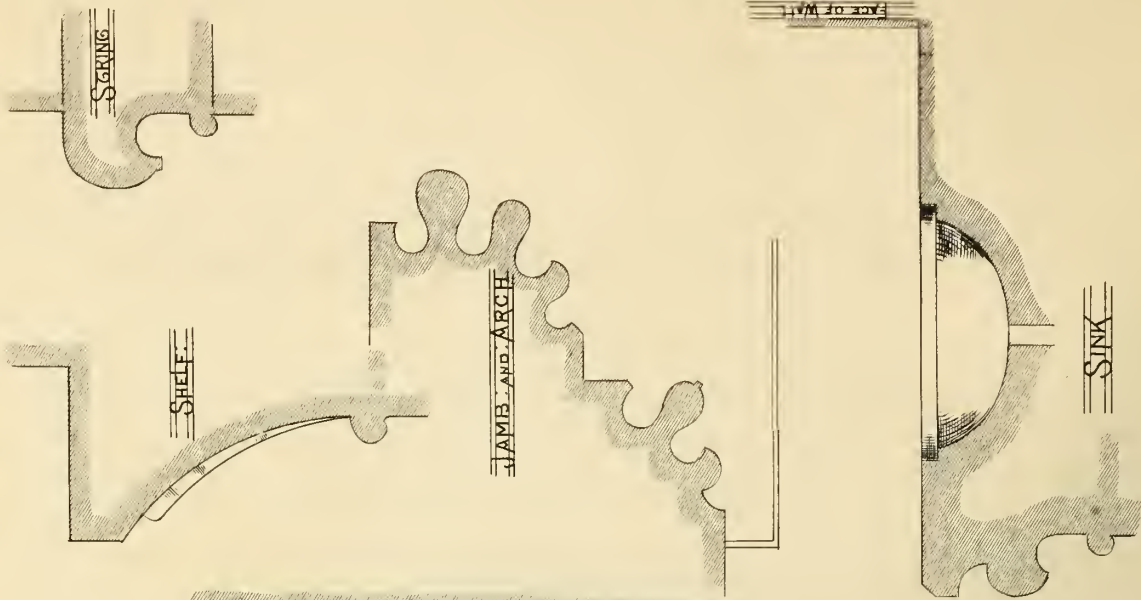
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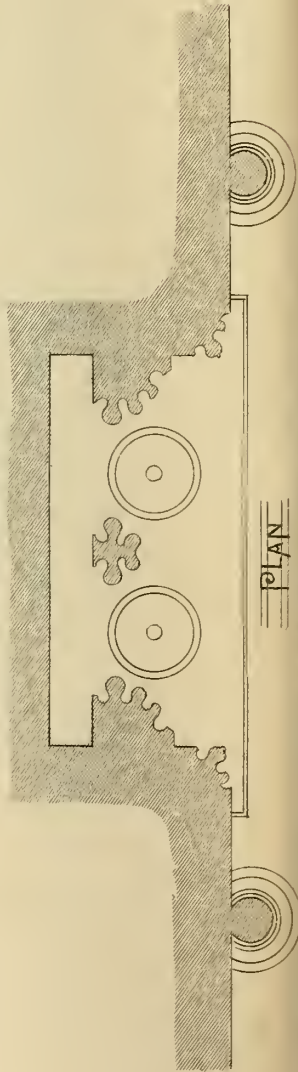


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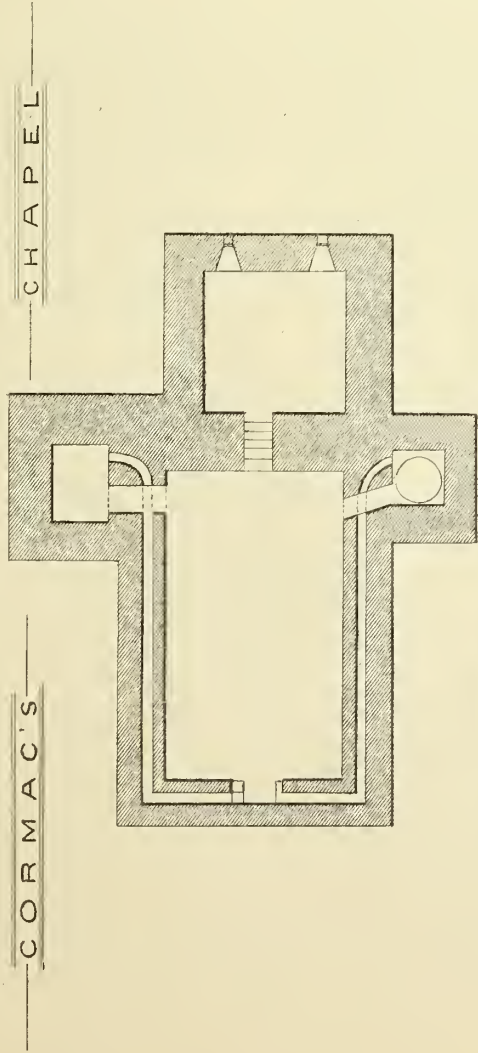
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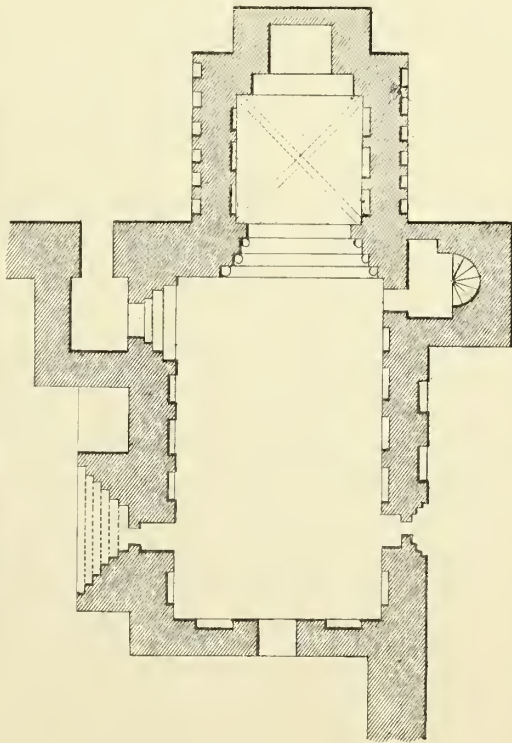
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SEPTEMBER 1872 LONDON



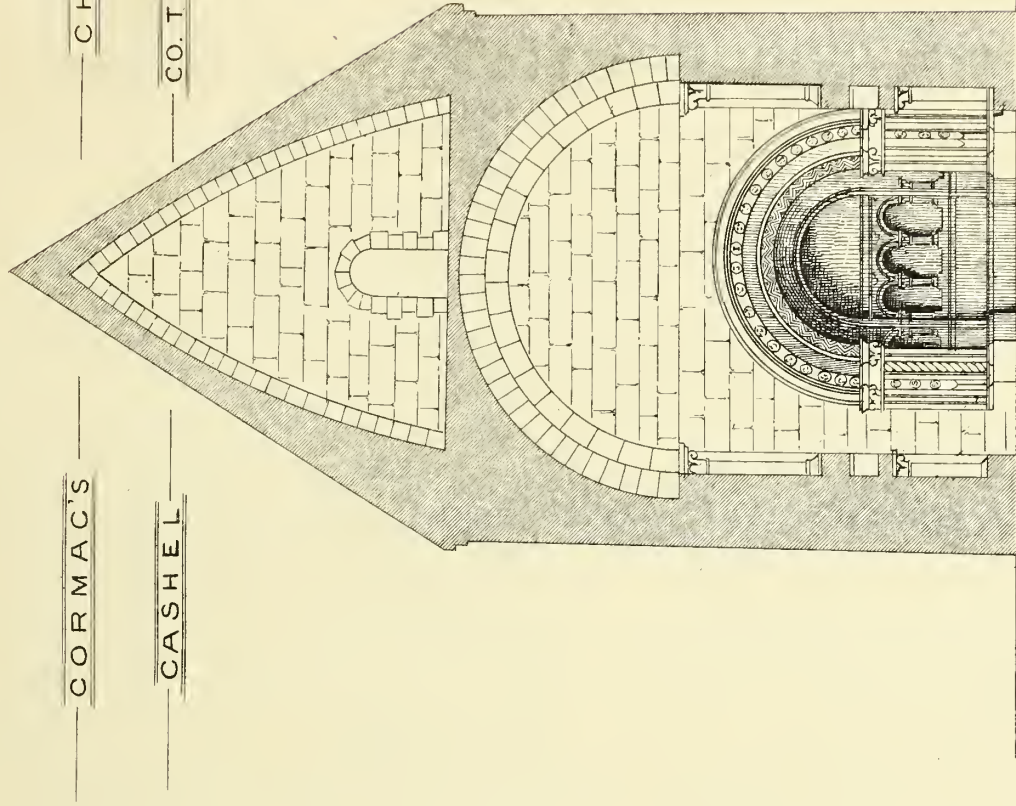
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of passenger or goods traffic these new lines can secure until some of our native resources are developed. Of course the opening of a railway tends to the developing of trade, but great caution is necessary in laying out new Irish lines, the termini of which, no matter what may be their connections, are confined to the limits of this island. Land's End and John O'Groats, King's Cross and Cromarty are long distances between, and the completion of Mont Cenis Tunnel places Paris and Rome in one direct line of intercourse. Goods and passenger traffic in England and Scotland or on the continent has ample fields, tributaries, and outlets for any amount of speculation to be indulged in, but Ireland as yet has failed to secure for her existing lines half the goods and passenger traffic that might be anticipated.

English railway companies have directly and indirectly promoted new building improvements by the opening up of new localities, but they have always been wide awake as to the resources existing or possible of being created in the different districts through which their new lines were intended to pass. It is no harm to remind intending shareholders to be cautious in their investments. We need undoubtedly an extension of the Irish railway lines, and also a reform in their management; and our object is not to throw cold water on any fresh railway enterprise in this country, but to lead to a little more caution in Irish railway construction, so that no more disastrous failures in conception and execution may shame our people, and tend further to prove the want of national foresight and capacity.

THE FUTURE GAS SUPPLY OF DUBLIN.

THE gas question is a very important one, and one that requires the serious attention of the citizens of Dublin. A monopoly now exists in this city, and the hopes held out to our people when an amalgamation was about taking place between the old Hibernian Gas Company and the present have not been fulfilled, and are not likely to be fulfilled. Whether the Corporation of this city, as at present constituted, would manage the gas supply any better, if entrusted to them than, the present gas company, may well be doubted. Proper corporate management in England and Scotland has resulted in giving a good supply at a moderate figure to the citizens, and we have no objection in the least to see the gas system managed by corporate authority, providing that a reform is first effected in the municipal representation of Dublin. Until a corporate reform takes place, and fresh blood is infused into the weak and mischievous councils of our present Corporation, it would be unsafe to entrust them with performing new duties. At a special meeting of the Municipal Council, held last Saturday, a report from Mr. William Cotton in relation to the present state of the gas question in Dublin was brought under consideration. In the course of this report Mr. Cotton says:—

"I make no charge against the administration of any existing company for the sale of gas; but I think it must be admitted that the management by the local authority would be more economical, and attended with results more satisfactory to the consumers and the ratepayers, when it is taken into consideration that the acts of the local authority will be under public supervision, and that their object must be the production and sale of gas at a cheap rate, rather than the payment of a large dividend to the shareholders. In Manchester, where the gas works are the property of the corporation, owing to the economy resulting from prudent management, the increased demand for gas has been such as to surpass all expectation. In nearly every instance householders and roomkeepers consume it; and some idea of the extent to which gas is in use by the working classes may be gathered from the fact that, with a population scarcely equal to Dublin, there are 33,000 small consumers, whilst in Dublin there are scarcely 2,700. In Manchester, Liverpool, Paisley, Preston, Glasgow, and numerous other places, gas of the same quality in some instances, and in others of a much superior illuminating power to what the citizens of Dublin pay for at

the rate of 5s. 6d. per 1,000 feet, has been selling at rates varying from 2s. 11d. to 4s. 2d., notwithstanding that in these places coke (one of the principal residuals) is of little or no value compared with what it is in Dublin, where it is a source of large income to the company."

The Corporation, as usual, are now ready, or declare themselves in readiness, to promote a bill to enable it to purchase up the rights of the Alliance Gas Company, and work it for the interest of the citizens. The Corporation should first get out of debt, and try to perform the undertakings it has already pledged itself to perform before increasing its burden and further taxing the city. Promoting new bills is a pleasurable and profitable employment for others beside the "two law agents" who pick up their nice crumbs in the City Hall. If the ratepayers wish to know what they pay for "law and parliamentary expenses," let them consult the last Borough Account. In our present issue they will find some further information on the subject.

The gas supply of Dublin is dear and nasty, and under corporate management it would, we fear, little improve, unless a corporate reform is effected at the same time.

CIVIC LYRICS.—No. XXIV.

ERI GOBRAGH AND THE FORTY FOOLS.

Eri Gobragh and the Forty Fools—
Well, let us say there are twenty,
'Tis quite enough for the office stools,
Which seem of late to be plenty.
All Baba of the nursery tale
Picked his troublesome forty;
But Eri Gobragh and his votive tail
Are up to "scratch" in each sortle.

Eri Gobragh is a gallant knight,
With voice as soft as a woman's;
He prays in a dim religious light
For an Irish House of Commons.
And while he croons with a banshee wail
O'er the grave of the great departed,
He rides express by the Irish mail
As soon as the game is started.

Eri Gobragh can handle his tools,
Although many ills environ
The wards of all of the Forty Fools
With their golden keys in iron.
Leaders have oft led men into gaol,
Proclaiming the people's charter;
But Eri Gobragh will save his tail
Until he has caught a Tartar.

Eri Gobragh is no advocate
Of indiscriminate slaughter;
His love of all in-ect life is great,
On land as well as in water.
He would not tread on a worm or snail
Without stooping to beg its pardon;
He made Mud Island a golden vale,
And the city a people's garden.

Eri Gobragh is losing his sheep;
There is nothing left to bind them.
They're straying away for want of keep,
And without a tail behind them.
When wool was priced by the borough scale
The sheep had all bread and butter,
But the flock now bleats a doleful tale
In pastures swimming in gutter.

CIVIS.

ADULTERATED FOOD AND DRINK—THE NEW ACT.

HERE is work for the Municipal Council, which we hope the citizens will compel them to perform. Several of the local bodies in the London metropolis are now about to carry out the provisions of the "Act to Amend the Law for the Prevention of Adulteration of Food and Drink and of Drugs," which received the Royal assent the last day of the session. This Act gives power in London to the Commissioners of Sewers, and in the rest of the metropolis to the district boards and vestries, to the Courts of Quarter Session and town councils in England, to the grand juries and town councils in Ireland, to the Commissioners of Supply for the counties and the town councils for boroughs in Scotland, to appoint analysts of all articles of food and drugs; and these bodies are compelled to appoint the analyst when called upon to do so in England by the Local

Government Board, in Scotland by the Secretary of State, and in Ireland by the Lord Lieutenant. The analysts having been appointed, the local authorities are to employ the inspectors of nuisances, of weights and measures, or of markets, to procure samples of suspected articles, and hand them to the analyst to be analysed. Should the analyst certify that the articles are adulterated, then the inspectors will make a complaint before a magistrate, who will thereupon issue a summons. The offences and punishments are as follows:—1. Any person adulterating or causing others to adulterate any article of food or drink, by the addition of any injurious or poisonous ingredient, or who shall in any way adulterate any drug, is to be fined £50 for the first offence, and on the second conviction to be imprisoned for not more than six months with hard labour. 2. Any one who knowingly sells any article of food or drink mixed with anything injurious to health, or any kind of adulterated food, drink, or drug, becomes liable for each offence to a fine not exceeding £20 and costs; and on a second conviction the name, address, and offence are to be published, at his expense, in such newspaper or in such other manner as the justices shall direct. 3. The addition of any substance whatever to any article of food or drink or any drug, in order fraudulently to increase its weight or bulk, without the fact being clearly stated, shall be deemed to be adulteration. There is also a provision in the Act that the analysts shall make monthly reports of the adulterations they have detected. The analysts may also give certificates of the purity or adulteration of any article of food or drug to private purchasers on the payment of a certain fee.

DR. O'LEARY ON SANITARY MATTERS.

In a late lecture at the Mechanics' Institute, Dr. O'Leary spoke at considerable length on the preventibility of contagious diseases, and addressed his observations in particular to the working classes. He urged upon his audience the necessity of ventilating bedrooms, and of maintaining personal and domestic cleanliness by baths and by removing everything which contaminates the air in houses. Even at the risk of being called an alarmist he expressed his belief that the cholera which is now raging at Constantinople would by next spring have traversed the Mediterranean, crossed France, passed through England, and come amongst us. He then showed how a great deal of its ravages might be prevented by avoiding impure air and the debilitated, bloodless condition of frame which impure air produces amongst the lower classes, and by cleanly habits. He illustrated his statements with regard to the propagation of cholera by a number of instances, and referred to the great experience of the subject gained with the army in India by Dr. Pardon, son of the worthy chairman, who was present at the lecture. In conclusion he alluded to the great value of window gardening in purifying the atmosphere of rooms, and engendering and developing a taste for the pure and the beautiful; and spoke of the noble generosity of Sir Arthur and Mr. Cecil Guinness in making a present to the working classes of Dublin of thousands of beautiful and valuable flowers from the Exhibition for this purpose. He expressed his sorrow at the scenes of fighting and scrambling that had taken place when the first attempts were made to give away these flowers at the Exhibition, and, worse still, the frauds perpetrated by some persons, who hurried off with the prizes only to sell them. He suggested the formation of a Window Gardening Committee to see to the distribution of the flowers amongst proper persons, and that the obliging head gardener of the Exhibition might be requested to give them some practical information on the subject. The suggestion was warmly received, and before the audience departed the names of persons willing to serve on the committee were taken down.

"THE QUERIST."

BY GEORGE BERKELEY, BISHOP OF CLOYNE.

(With Notes by "Dubliniensis.")

"FIRST PUBLISHED A.D. MDCCLXXXV."

WHETHER it is possible a state should not thrive whereof the lower part were industrious and the upper wise?

Whether the collected wisdom of ages and nations be not found in books? [Outside written and printed knowledge, the field of nature and the domain of art, in the past and in the present, furnishes by research and study boundless wisdom and knowledge not to be found in books; but books withal are necessary foundation stones for building up our knowledge and wisdom.]

Whether Themistocles, his art of making a little city or a little people become a great one, be learned anywhere so well as in the writings of the ancients?

Whether a wise state hath any interest nearer heart than the education of youth? [If wise, no other interest on earth should be nearer to her heart.]

Whether the mind, like soil, doth not by disuse grow stiff, and whether reasoning and study be not like stirring and dividing the glebe?

Whether an early habit of reflection, although obtained by speculative sciences, may not have its rise in practical affairs? [Assuredly. By reflection thought is pruned and ripened; wit and declamation may spring and sparkle impromptu, but art and science are not of mushroom growth and life.]

Whether even those parts of academical learning which are quite forgotten may not have improved and enriched the soil, like those vegetables which are raised, not for themselves, but ploughed in for a dressing of land? [The ancient classics are useful to know, though it is not necessary that too much time should be expended in their study, to the neglect of the more practical and important matters on which a man's living depends. Discrimination as to person and passable position is needed.]

Whether it was not an Irish professor who first opened the public schools at Oxford? Whether this island hath not been anciently famous for learning? And whether at this day it hath any better chance for being considerable? [Although the pioneers and teachers in early times to other nations, the natives of this island at this day need to be taught in many ways. There is something more than a spurt necessary on our part to recover lost ground.]

Whether we may not with better grace sit down and complain when we have done all that lies in our power to help ourselves? [Sitting down to complain, before we have done anything to aid ourselves, is unfortunately what many of us in this country have been accused for doing, and sometimes with good reason.]

Whether the gentleman of estate hath a right to be idle, and whether he ought not to be the great promoter and director of industry among his tenants and neighbours? [He ought; but then in nine cases out of every ten he won't.]

Whether in the cantons of Switzerland all under thirty years of age are not excluded from their great councils?

Whether Homer's compendium of education—

μύθων τε ῥήτων ἔμεναι, πρηκτῆρά τε ἔργων.
(*Iliad*, ix.)—

would not be a good rule for modern educators of youth? And whether half the learning and study of these kingdoms is not useless for want of a proper delivery and pronunciation being taught in our schools and colleges? [The Milesian *brogue* is not out of place in the learning of some of our modern languages. An attempt on the part of a Cockney to pronounce a Welch word will dislocate his jaw, while a poor illiterate West-of-Ireland man, after a few months' residence in Wales, will speak that tongue fluently. An educated or an uneducated Irishman will also sooner

learn to speak French than a native of the sister kingdom, and the former will pronounce it with the proper accent. Proper pronunciation is all important, however; and the facility shewn by many of our countrymen to acquire a language not their own, is not always accompanied with the art of pronouncing the words in modern parlance correctly *à la mode*.]

Whether in any Order a good building can be made of bad materials? Or whether any form of government can make a happy state out of bad individuals?

What was it that Solomon compared to a jewel of gold in a swine's snout?

Whether the public is more concerned in anything than in the procreation of able citizens?

Whether, to the multiplying of human kind, it would much conduce if marriages were made with good liking?

Whether, if women had no portions, we should then see so many unhappy and unfruitful marriages?

Whether the laws be not, according to Aristotle, a mind without appetite or passion, and consequently without respect of persons? [Unfortunately passion and prejudice are allowed to warp the judgment in the administration of laws on too many occasions, and title sometimes secures immunity where humbleness would get the lash. On the other hand, wealth can always defend a wrong if it lists, while want stands powerless in the right.]

Suppose a rich man's son marries a poor man's daughter; suppose, also, that a poor man's daughter is deluded and debauched by the son of the rich man, which is the most to be pitied?

Whether the punishment should be placed on the seduced or the seducer? [The former suffers for the consequence, the latter should suffer for the act; but the public chastisement should be more equalized, as a deterrent to both.]

Whether a promise made before God and man in the most solemn manner ought to be violated?

Whether it was Plato's opinion that, for the good of the community, rich should marry with rich (*de Leg.*, 1, 4)?

Whether, as seed equally scattered produceth a goodly harvest, even so an equal distribution of wealth doth not cause a nation to flourish?

Whence is it that Barbs and Arabs are so good horses? And whether in these countries they are not exactly nice in admitting none but males of good kind to their mares?

What effects would the same care produce in families? [Though the query may be thought an indelicate one, it is nevertheless pertinent. If frightful diseases are ever to be stamped out, and thorough public health established, some restrictions ought to be placed by religion and law on the marriage of unhealthy, diseased, and deformed individuals.]

Whether the real foundations for wealth must not be laid in the number, the frugality, and the industry of the people? And whether all attempts to enrich a nation by other means, as raising corn, stock jobbing, and such, are not vain? [The industry of a people in the cultivation of the soil, and in the prosecution of those trades which are dependent upon it, are the real sources of wealth.]

Whether a door ought not to be shut against all other methods of growing rich, save only by industry and merit? And whether wealth got otherwise would not be ruinous to the public?

Whether the abuse of banks and paper money is a just objection against the use thereof? And whether such abuse might not easily be prevented?

Whether national banks are not found useful in Venice, Holland, and Hamburg? And whether it is not possible to contrive one that may be useful in Ireland? [In Bishop Berkeley's time Ireland could not boast of any useful system of banking to accommodate the wants of her middle or industrial classes,

and her trade consequently suffered much for want of development. Even at present the banking system of Ireland is far from being advantageous or useful to our people. The cultivation of the soil and the small tenant-farming and peasant proprietary interest could have been long since assisted, and the prosperity of the country assured, if a simple, feasible system of bank advances had been carried out in this country; so likewise the bank system might have developed trade and industrial arts by assistance to *bona fide* projects, with, of course, due precautions and securities.]

Whether the banks of Venice and Amsterdam are not in the hands of the public?

Whether it may not be worth while to inform ourselves in the nature of these banks? And what reason can be assigned why Ireland should not reap the benefit of such public banks as well as other countries?

Whether a bank of national credit, supported by public funds and secured by parliament, be a chimera or impossible thing? And, if not, what would follow from the supposal of such a bank?

Whether the currency of a credit so well secured would not be of great advantage to our trade and manufactures?

Whether the notes of such public bank would not have a more general circulation than those of private banks, as being less subject to frauds and hazards?

Whether it be not agreed that paper hath in many respects the advantage above coin, as being of more despatch in payments, more easily transferred, preserved, and recovered when lost?

Whether, besides these advantages, there be not an evident necessity for circulating credit by paper, from the defect of coin in this kingdom?

Whether it be rightly remarked by some that, as banking brings no treasure into the kingdom like trade, private wealth must sink as the bank riseth? And whether whatever causeth industry to flourish and circulate may not be said to increase our treasure?

Whether the ruinous effects of Mississippi, South Sea, and such schemes were not owing to an abuse of paper money or credit, in making it the means of idleness and gaming, instead of a motive and help to industry? [Most certainly.]

Whether the rise of the Bank of Amsterdam was not purely casual, for the security and despatch of payments? And whether the good effects thereof, in supplying the place of coin, and promoting a ready circulation of industry and commerce, may not be a lesson to us to do that by design which others fell upon by chance? [The Bank of Amsterdam was established in 1609, and, like that of Venice, it had its rise in the exigencies of the state, and to remedy the inconvenience arising from the great quantities of clipped and worn foreign coin that was then in circulation. The Amsterdam Bank professed to lend out no part of its deposits, and to possess bullion to the whole amount of the credit given in its books. This, however, was not a fact. When the French took possession of Amsterdam in 1796, it was discovered that the bank had lent nearly £1,000,000 to the States of Holland and Friesland, and this was the principal cause of its ruin. A new bank was established in 1814, called the Bank of the Netherlands. The Bank of Stockholm was founded in 1688, and, according to Hume, it was the first bank in Europe that invented bank notes. The Chinese have, however, the credit of having been the first to invent bank notes, as early as A.D. 807. For references on banking history and matters see "English Cyclopædia," "McCulloch's Commercial Dictionary," Gilbert's several works on Banking, "Lawson's History of Banking," "Smith's Wealth of Nations," and other kindred works.]

Whether plenty of small cash be not absolutely necessary for keeping up a circulation among the people; that is, whether copper be not more necessary than gold?

Whether that which increaseth the stock

be not a means of encreasing its trade? And whether that which encreaseth the current credit of a nation may not be said to encrease its stock?

Whether the credit of the public funds be not a mine of gold to England? And whether any step that should lessen this credit ought not to be dreaded?

Whether such credit be not the principal advantage that England hath over France; I may add over every other country in Europe?

Whether by this the public is not become possessed of the wealth of foreigners as well as natives? And whether England be not in some sort the treasury of Christendom?

Whether, as our current domestic credit grew, industry would not grow likewise; and, if industry, our manufactures; and, if these, our foreign credit?

Whether foreign demands may not be answered by our exports without drawing cash out of the kingdom?

Whether, as industry encreased, our manufactures would not flourish, and as these flourished whether better returns would not be made from estates to their landlords both within and without the kingdom? [Without a doubt.]

Whether the sure way to supply a people with tools and materials, and set them at work, be not a free circulation of money, whether silver or paper? [Providing the industrious with means to perform needful work, will be not only useful to the individuals but productive of wealth to the state? Forced as well as voluntary idleness impoverishes the nation as well as the subject.]

Whether in New England all trade and business are not as much at a stand, upon a scarcity of paper money as with us from the want of specie? [Writing in 1735, many of Bishop Berkeley's queries anent banking have lost the interest that they then and for many years subsequent possessed, yet we deem it not amiss to produce them. Many of his suggestions were practical and all worthy of consideration, and several years after his death his suggestions were taken up and acted upon. The queries in which he speaks of the Bank of Amsterdam are of no immediate value, unless the reader supposes them to apply to some other bank existing under similar conditions, and in the same state of society as that once famous one. In republishing the Bishop's "Querist," we prefer to give it entire as it left his hands after his last emendations.]

Whether it be certain that the quantity of silver in the Bank of Amsterdam be greater now than at first; but whether it be not certain that there is a greater circulation of industry and extent of trade, more people, ships, houses, and commodities of all sorts, more power by sea and land?

Whether money lying dead in the Bank of Amsterdam would not be useless as in the mine? [Except for security sake, money deposited in a bank, from which no interest arises, might as well be hid away in the proverbial stocking bank; directors, however, know how to utilise their reserve fund and increase it and diminish it as occasion requires for their own profit and security.]

Whether our visible security in land could be doubled? And whether there be anything like this in the Bank of Amsterdam? [No, nor in the Bank of England or Ireland. Ships, houses, and commodities nearly of all sorts can be destroyed, but nothing short of a convulsion of nature can destroy the visible security that exists in the land. In the soil and below it there are mines of wealth.]

Whether it be just to apprehend danger from trusting a national bank with power to extend its credit, to circulate notes which shall be felony to counterfeit, to receive goods or loans to purchase lands, to sell also or alienate, and to deal in bills of exchange, when these powers are no other than have been entrusted for many years with the Bank of England, although but in truth a private bank?

Whether the objection from monopolies and an over-growth of power, which are made

against private banks, can possibly hold against a national one? [Previous to 1782, the banking business of Ireland was carried on by private individuals. The Bank of Ireland opened business first in Mary's-abbey in June 1783. It was some time before it became popular—the Bank of England, with its imperfections, being adopted as the model. Up to 1826 the transactions were in Irish and since in English currency. The Bank of Ireland for upwards of forty years was scarcely more than a Dublin bank; and it was not until after 1825, when the Provincial Bank had established branches in several towns, that the Bank of Ireland was obliged to accommodate itself to the wishes of the people by doing the same. In the year 1800 there were eleven private banks; three years later, thirty, and in 1804 they had increased to fifty. In 1812, with the exception of about nineteen, all the others had failed, though a number of new ones had entered the field. In the last-named year there were thirty-three banks doing business, but these, after a few years, disappeared, some of them involving hundreds in ruin. Among those which survived are Messrs. La Touche, Ball and Co., Boyle, Low, and Pim. The most remarkable failure was that of Williams and Finn. This bank failed for £300,000, though it never was during the whole course of its existence worth £1,000. Before the silver issue of the Bank of Ireland, called tokens of the value of fivepence, tenpence, and six shillings, there existed an I O U small paper currency or ticket of a value extending from threepence to six shillings. These were issued by merchants, shopkeepers, and others in all forms of credit; and when they amounted to a pound, if presented, were paid. These petty bankers numbered probably four or five hundred throughout the country at one period. Fictitious as the currency undoubtedly was, it enabled the people to carry on their trade transactions, which they could not have otherwise done without a similar medium. The first joint-stock banking company formed in Ireland was the Hibernian Banking Company in 1824. The Provincial Bank of Ireland 1825, Northern Banking Company 1827, National Bank of Ireland 1835, Carrick-on-Suir National Bank 1835, Clonmel National Bank 1836, Ulster Banking Company 1836, Royal Bank of Ireland 1836, Tipperary Joint Stock Company 1839. The National Bank of Ireland became popular with the Irish peasantry in consequence of O'Connell being connected with it at the commencement, and it was for some time called "O'Connell's Bank." On some other occasion we may have a word to say at length on these Irish banks, their uses, utility and power. There is a reform needed and there is also a change necessary to render Bank of England and Bank of Ireland notes to pass current as a legal tender both ways in each country. Each bank should also be authorised by law to pay each other's notes in gold or in paper that will be accepted as possessing the same value, no matter on which side of the channel they may be tendered.]

(To be continued.)

THE AGRICULTURAL LABOUR QUESTION.

THE condition of the agricultural labourer is still continuing to occupy the serious attention of not only the landholding interest, but of all classes of the community. The skilled labour classes in the sister kingdom are also joining issue with their unskilled brethren in their movements, and, by pecuniary assistance as well as by words, are enabling them to obtain a reform. The condition of the agricultural labourer is a question that cannot be ignored, and it behoves the landlord and farming interest in this country as well as in England to take some immediate steps in the matter, so that some improvement may soon become visible. A few of our resident proprietary have already shown their

sympathy by erecting on their property a better class of dwellings for their agricultural tenantry and labourers, or making allowance to the former for that object. In the matter of remuneration for labour, either in an increase in money or kind, very little is being done in Ireland, consequently a very great number of our more intelligent class of agricultural labourers have left and are leaving this country.

At an agricultural dinner, held at Worcester, Lord Lyttelton, Sir J. S. Pakington, and Mr. Campbell, M.P., spoke at some length on the agricultural labour question. We append a portion of the remarks of each:

Sir J. S. Pakington, in the course of his remarks, said his earnest wish was that the agricultural interest generally should look at this agricultural labourers' question in this view, and that they should do what they could to promote the interest of the agricultural labourer, considering that what promoted his interest promoted also their own, and so attached the labourer to the soil, and helped to save him from those who would poison his mind with the view to the attainment of dangerous objects. There was an association in existence of which they would probably soon hear more, which started with the title of "The Association for Improving the Condition of the Agricultural Labourer," the objects being to improve his position, to increase his civilisation, and to make him more respectable and happy. Whether or not the recommendations which might proceed from that association might command their approbation was doubtful; but he would earnestly advise all who might be called upon to consider the views and proposals of the association not hastily to accept or reject them. They were placed in a difficult crisis, and it became them all to meet that crisis, and before they condemned any proposal with that object to weigh it well. The first requirement on the part of that association was that every labourer should be lodged in a decent house, with land enough for the sustenance of himself and his family in allotments or garden ground; and another requirement was that the cottages of the labourers should be held directly from the landlord. (No, no). To those who said "No," he would remark that there should be two important exceptions to the rule—that those who had the management of the farm and the waggons should hold their cottages from the occupier. He would also protect the occupier from the caprice of the labourer. He also advocated the rule that the labourer should be allowed to keep a cow, and either rent it from the farmer, or, if he had saved the necessary capital, have one of his own, with sufficient land to keep it upon. He could point to cases in which this plan had operated successfully. He also advocated the substitution of "piece work" for day labour, and he quoted a case in which a labourer who, by day labour had earned only 10s. a week, had got 14s. by piece work, without loss to the farmer, who had the full advantage of all the work that was done. Next he supported the idea of co-operative farms, and an extension of the system of co-operative stores into every village of the kingdom. As to the relations to be maintained between the owner and the occupier of the soil, he had expressed his views on that subject before. He considered that he who entered upon a farm and cultivated it with spirit and devoted his capital to its due cultivation had a moral right to security for the capital invested. In his opinion the best way to secure that was by the system of granting leases. Then came the question of compensation for unexhausted improvements, and he considered that such compensation was only simple justice. He did not think it could be fairly withheld, and without drawing a distinction between the system of leases on the one hand and the system of tenant-right on the other, he thought that every prudent landlord would offer a lease to a good tenant, and with leases there should be compensation for unexhausted improvements. In the lease there should be covenants to protect the landlord in the concluding years of the term, and there should be equal justice to the tenant for unexhausted improvements. On the termination of a tenancy, too, the notice to quit should be a notice of twelve months instead of six.

Mr. Campbell, M.P., after remarks on the question of local taxation, which he thought the Government must deal with after the unmistakable expression of the House of Commons in the last session on the resolution of Sir M. Lopes, came to the labour question. He thought it was unavoidable that some time or other the principles of trades unions would extend to agriculture, but he thought its introduction would be rather prejudicial than advantageous to the agricultural labourer, there being no analogy between the ordinary and the agricultural labourer. In further remarks on the subject, in which the

hon. member alluded to the privileges of the agricultural labourer, he said it could not be denied that the labourers' wages had been raised in the last few months. Although there were other causes to account for this independent of trades unions, it was not unnatural that the agricultural labourer should look on these things together as cause and effect. At all events, the men were in the legal right in forming the union, and it was not wise to use severe language either towards the union, labourers, or their mouthpieces. If union men refused to work with men not in the union, they might be sent about their business; but if a union man did his work at their wages, they need make no inquiry about him. He agreed with Sir J. Pakington as to the necessity of good cottages; but he had not much faith in associations with their cut and dried plans. Nor did he concur with the right hon. baronet's remarks on the subject of allotments and the keeping of a cow by the agricultural labourer. He coincided with his views on tenant-right.

Lord Lyttelton followed on the subject of labour. He wanted to know whether the agitators for a rise of wages meant to go on the principle of political economists, who placed the labourer and employer in a position of buyer and seller. The one wanted to sell to the other his labour for the most money that he could get. There were in the old relations of farmer and labourer certain privileges accorded to the labourer, which really were a payment of wages in kind. If the wages of the labourer were raised, and the principle of the political economist were acted upon, there must of course be an end to all these privileges, and the labourer would stand to the farmer in a different relation to what he had hitherto done. There were two distinct parties who were at this moment moving for change: the one presided over by Mr. Arch, and the other, to which Sir J. Pakington had alluded, with which such men as Sir Baldwin Leighton and others were connected. If wages in kind, such as he (Lord Lyttelton) had alluded to, were to be put an end to, then the labourers and their friends most understand that the privileges would cease, and that they would get nothing else but their hard wages. He was inclined to think that the labourer believed his former privileges would be continued with his rise in wages. His lordship went on to object to the taking the cottages out of the hands of the farmers, for reasons which he gave.

The practical observations of Sir John Pakington are worthy of the calm and attentive consideration of our Irish landed proprietary. Better dwellings, an increase in wages, and some few special privileges were urgently required for the labourers; and the occupier should certainly be secured by a lease, or compensated for improvements whenever he had to surrender his holding. It was only simple justice, to use the language of Sir John Pakington, that compensation should be given for unexhausted improvements.

THE CHURCH OF ST. NICHOLAS, GALWAY.

MR. Walter Raleigh Trevelyan, an English gentleman and tourist who has been spending some time in the West of Ireland, writes to a contemporary by way of appeal that funds may be contributed for the restoration of the above beautiful but dilapidated ecclesiastical ruin. He says:—

"Scarcely one in a thousand has seen, or even heard of, the fine old monument of our ancestors' piety—the church of St. Nicholas, Galway. This church was built in the 12th century by the early settlers, and added to by succeeding generations. It obtained various rights and privileges from different kings, from Edward III. to Charles II. In style it partakes of what is called the Middle Pointed, though this is not strictly adhered to throughout, doubtless from the different additions by different benefactors. However, considering the whole pile as the work of more than one generation, the universal characteristics are very uniform. Still, I am sadly digressing from my object, which was not to give an archaeological treatise of this church, but to beg the assistance of my brethren of the Protestant faith to enable it to be freed from the pollution of bad taste, which has white-washed its cut-stone pillars, lath-and-plastered its open-worked ceilings, and walled up the spaces between the columns of nave and aisles, and to restore the ravages done by the hand of Time, who has left the impress of his finger indelibly stamped on its features.

Time has certainly helped much to ruin the old church, but he has had most faithful colleagues in

various vestries, who ordered the abominations I have alluded to above.

Will any of my readers come forward in the spirit of a Goimness, and give a helping hand, or at least contribute their alms, to prevent the grand old pile being left unfinished in its works of restoration, which are now being carried on by able hands, though in a limited degree, from the want of funds? Much has been done to attain our object, but, I grieve to say, far more remains to be done. Contributions will be thankfully acknowledged by the Rev. John D'Arcy, Galway; and should I, by my feeble voice, have attracted the aid so much sought, I shall congratulate myself, on my return to England, that I have been better rewarded in this than by the sport I have enjoyed here—such sport as the West of Ireland alone produces."

This is a very commendable appeal, and we hope it may be responded to both Irish and Englishmen. There are, however, many ecclesiastical edifices in this country as well as St. Nicholas loudly calling for funds that they may be saved from certain destruction. There is a sad lack of public spirit in this nation in the matter of the preservation of our most beautiful national monuments. The Royal Archaeological Association of Ireland has, with its limited resources, achieved a most commendable amount of restoration during its existence. We trust that those who can spare a little will contribute some support to the association, that it may be enabled to continue its valuable labours in the still further preservation of our national memorials.

THE LASH FOR ADULTERATORS AND UNSANITARY SINNERS.

SOME of our magistracy are to be complimented for their public spirit in punishing the nefarious class of food and milk adulterators and vendors in this city, and the public would be under greater obligations to them if they would exercise their powers in a further direction. Why not extend the punishment by penalties and imprisonment to the betting-swindling, money-lending swindling, and to the punishment and exposure of newspaper publishers of indecent quack advertisements, by which the daily and weekly Press of this city are disgraced. The power is in the hands of the magistracy, and the executive, through the officials of Exchange-court, should take up the matter at once. As all adulterating vagabonds should be publicly exposed as well as punished, it will only be doing an act of public justice on our part to give space and assistance in the most extended exposure of the nefarious tribe who are not only robbing but poisoning our people. During the last month the following cases came up for judgment at our police courts:—

Several persons were summoned at the instance of the Commissioners of the Pembroke Township, by their sanitary inspector, Mr. M'Evoy, for frauds upon the public. Mr. Ennis appeared as attorney for the Commissioners, and Dr. Cameron proved the extent to which the milk had been adulterated. Peter Canavan, of Eastmoreland-lane, was proved to have sold milk adulterated with 50 per cent. of water. He was fined £8, with £2 costs. Mary Bride, of Sandymount-avenue, was proved to have sold milk adulterated with 56 per cent. of water. She was fined £9, with £2 costs. James Bryan, of Dundrom, was proved to have sold, within the Pembroke Township, milk adulterated with 56 per cent. of water. He was fined £9, with £2 costs. Robert Hudson, of 10 Bath-street, Irishtown, an employé in the Glass Works, Ringsend, was proved to have had milk, sold by retail in his house, adulterated with 100 per cent. of water. He stated that he bought the milk for retail from a dairyman named Carroll, and denied that he watered it. Mr. Ennis told him that if he could prove he had brought it in its adulterated state from Carroll he would receive every facility for proceeding against him. Denis Magrath an artisan residing at 6 Bath-street, was proved to have retailed milk adulterated with 60 per cent. of water. He was fined £8, with £2 costs. His worship remarked that penalties like these ought to teach people the impropriety of watering milk. Magrath said he was utterly unable to pay the fine, and his worship would only drive him into the poorhouse. His Worship—It is better to drive you into the poorhouse than others to their graves.

John Doyle, of 73 Aungier-street, was summoned, at the instance of Mr. O'Connor, Inspector of Dairies, for having sold milk on the 27th of August which was adulterated.

Dr. Cameron proved that the milk contained 25 per cent. of water, or in five pints of milk there was one of water. He also stated that in his analysis he took the lowest standard of milk. This was the first time the milk of the defendant was found to contain water.

Mr. Cane Morgan Farrell, of 10 Cuffe-street, was proved to have sold milk on the 27th August adulterated with 50 per cent. of water.

John Askin, of 185 Townsend-street, was also proved to have sold milk adulterated with 25 per cent. of water.

His Worship said he was determined to put down those cases of adulteration. He would fine Farrell £6 and £2 costs, and Askin and Doyle £3 fine and £1 costs.

Valentine Nelson, a journeyman hatcher of 81 Patrick-street, appeared to answer the summons of Mr. E. Webb, Sanitary Inspector, for having six quarters of beef, intended for sale, at his premises on the 19th October.

Constable Mallins proved the seizure of the meat, which was condemned by the magistrates.

Dr. Cameron proved that the meat was putrid, and also affected with pleuro-pneumonia.

The defendant said the meat was not for sale; it was only for the purpose of boning, or taking the flesh off the bones and selling them.

His Worship sent the defendant to goal for a month, as he had no doubt it was intended for human food.

Mr. Fox, proprietor of a bakery establishment on Haddington-road, was summoned by the Pembroke Township Commissioners for disobedience of an order for the improvement of a chimney which caused a nuisance to the residents of Haddington-road. A fine of £5 was imposed.

Patrick Masterson, the owner of three houses and two cottages in Eastmoreland-place, was summoned by the same Commissioners for having his premises in an unfit state for human habitation. Dr. Cameron stated that he had never seen a worse state of things. The dwellings were totally unfit to be inhabited. The Sanitary Inspector said that the houses had been several times condemned, but in consequence of the changes of the ownership so often occurring, the improvements were never carried out. His Worship made an order for the premises to be closed within three weeks, and not to be opened until they were in a condition to satisfy the sanitary officers. His Worship said he had fined a man £5 and £2 costs for opening a house before it was properly repaired, and he wished the defendant to be warned by it.

CLONTARF TOWNSHIP.

At the first annual meeting of this body the annexed report was submitted by Mr. Holbrook, C.E., secretary and surveyor. There is great room and facilities for improvement at Clontarf, and we hope we may be able to congratulate the commissioners at their next annual meeting for the improvements they have effected:—

"The commissioners submit for the information of the ratepayers their first report and statement of accounts as follows:—The gross valuation of the township is £13,894 5s. The county charges for the year 1872 are £360 14s. 8d., an expenditure over which the board have no control. The board have entered into a contract with the Alliance Gas Company for the lighting of the public lamps (numbering 72) by the average meter system, which is working satisfactorily. The Varriv water has been introduced into the township in accordance with the provisions of the act, and as the majority of the householders have availed themselves of the supply, the commissioners earnestly urge the occupiers to prevent waste of water, as the consumption has been very large. A mortgage of £3,000 has been effected to meet the expenses of laying the mains. A sanitary inspector has been appointed, and the board solicit the co-operation of the ratepayers in their exertions for the improvement of the township in this respect. The board refer with pleasure to the proposed introduction of the tramways, and also to the great improvement effected by the lowering of Newcomen Bridge. The roads have suffered severely from the inclemency of the season, and considerable difficulty has been experienced in obtaining a supply of suitable material; but arrangements have now been made for procuring good stone from Kilrock quarry, and a contract has been made for a supply of gravel for the footpaths. The sea wall having been much injured by storms, has caused an outlay of £215, the commissioners being

obliged to put it into repair on coming into office. There is reason to hope that an outlay of this description will not be again required. The accounts, in compliance with the provisions of the Township Act, have been written up to 31st December, 1871, and are ready for audit. Since that time £2,500 has been borrowed from the National Bank, and the costs incident to the incorporation of the board, due to Messrs. Casey and Clay, have been taxed, and those due to Messrs. Franks and Son largely reduced by agreement. The entire sum, amounting to £2,375, has been discharged, and on the 30th June, 1872, there was a balance in bank to the credit of the township of £115 3s. 5d., and £754 14s. 11d. lodged on deposit receipt to the credit of the Vartry water account."

INSTITUTION OF CIVIL ENGINEERS, LONDON.

THE fifty-sixth session of the members of this body will be commenced on Tuesday, the 12th inst., and will be continued thereafter on each succeeding Tuesday, with the exception of a short interval at Christmas, till the end of May. During the recess the premises occupied by the institution in Great George-street, Westminster (which were rebuilt and greatly enlarged in 1868) have been elaborately decorated, especially the theatre; and additions have been made to the library. The members have been specially urged to contribute, for reading and discussion at the evening meetings, well-authenticated accounts descriptive of executed works in foreign countries, in which it is thought British engineering literature is at present somewhat deficient. With regard to candidates seeking admission into the institution, the members of all classes have been reminded that personal knowledge of the career and antecedents of every candidate is requisite, and only such should be recommended for election as are believed to be in every way worthy of the distinction, and willing and able to advance the interests of the society.

NOTES OF WORKS.

Derriaghy Church, county Antrim, which was consecrated during the last month, consists of a nave 90 ft. by 40 ft., with an apse at end. Its entrance-porch is at the west end; and the tower, which is surmounted by a spire rising to the height of 120 ft., is at the north-western angle. It has a semicircular-ribbed roof springing from carved corbels. The boarding of the roof and the seats in the church are stained and varnished. The architects were Messrs. Welland & Gillespie, and the builders Messrs. Lowry and Son, of Belfast. The entire cost of the edifice is stated at about £3,500.

A new Presbyterian church is to be erected in Fitzroy-avenue, Belfast. The first stone was laid on the 26th ult. by Mrs. Workman Windsor. The church is intended to seat 700 persons, the cost to be about £5,000. A proposed manse and schools will be an additional £3,000.

Extensive alterations and improvements have been made at Ballycastle Presbyterian Church, county Antrim.

HOME AND FOREIGN NOTES.

THE ASPHALTING OF HENRY-STREET.—We have noticed with pleasure the expedition with which the work of laying down asphalt in this street has been accomplished by the Irish Val de Travers Company. A fortnight only has elapsed since the paving setts were removed, and now the entire is open for public traffic. This presents a satisfactory contrast to the snail's-pace progress made by other public works in this city.

THE COMMISSION JUDGES AND THE JURORS IN MUD!!—At the conclusion of the business at Green-street Court-house yesterday, Mr. Justice Keogh said he wished some body, he did not care what body, would take some means of having the filth removed which had accumulated outside the court-house since the sitting of the commission. A number of cars had been allowed to remain outside, and the dirt was accumulating daily. Its removal would certainly conduce to the good health of the jurors.

THE CITY LIGHTING.—Amongst the streets of our city in which additional lights have been lately placed, we may notice Sackville-street, in which the number has been doubled. At the corners of Princes-street lamp-posts have been placed. May we inquire why did the Post Office authorities reduce the number of lights in front of their building? Its frontages are insufficiently lighted at present. To this we drew attention on a former occasion. We notice that in front of "Old Trinity" four additional lights have been placed—these with the two at the College gates are not one too many for this chief thoroughfare of our city.

FREEMASONRY IN DALKEY.—The brethren of the Masonic Order in Kingstown, Dalkey, and Killiney applied on Wednesday to the Commissioners of Dalkey for the use of the Town Hall for the purposes of their lodge meetings, at a reasonable rent. The request having been refused, it was, at a meeting of the brethren subsequently held, determined to take the necessary steps either for the purchase of a house to be converted into a masonic hall, or for the erection of a suitable building forthwith. A committee and honorary secretaries have been appointed, and subscription lists opened.

NEW LITERARY WORKS.—Two new works are in preparation for the Press by Professor Galloway, of the Royal College of Science in this city. "How the Natural Sciences are Taught, and how they ought to be Taught," is the name of one; the other will be "A Manual of Applied Analysis." The first will embrace a scheme for rendering more efficient the Government Science School. Will these works be published in Dublin? What does echo answer?

ANCIENT SILKS.—Possessors of ancient silks and embroideries, manufactured previous to 1800, are solicited by Her Majesty's Commissioners to contribute a loan for the next year's International Exhibition at Kensington. They are for the purpose of comparison or show with similar modern productions. Some Irish families have doubtless samples of the olden silk trade that flourished during the eighteenth century on the Liberties and Coombe, which would be well worth exhibiting in Dublin as well as London.

A PUBLIC PROSECUTOR.—The Home Secretary has signified his intention to bring in a bill next session for the appointment of a public prosecutor. This city stands sorely in need of such a functionary, who would have ample and useful work to perform in proceeding against public bodies for a neglect of their duties—the Corporation and their officials, to wit.

PEOPLE'S PARKS.—The Lord Mayor of London has shown in a very practical way that he is anxious to secure to the people the permanent use of the magnificent area of 500 acres constituting the Alexandra Park. In order to do so a guarantee of £100,000 must be produced before negotiations for the purchase of the property can be entered upon. To give the leading citizens and employers of labour an opportunity of testifying their wishes his lordship has issued an invitation to them to meet him on Monday, the 4th inst., at the Mansion House, or, if unable to attend, to fill up and sign the form of guarantee for any amount for which they will be responsible. This guarantee has up to the present been signed for sums varying from £5 to £1,000, and it is to be hoped that the total sum will be subscribed before or at the meeting.

THE INSTITUTION OF CIVIL ENGINEERS (LONDON).—Mr. Thomas Howard, of the King and Queen Ironworks, Rotherhithe, who was for thirty-seven years an associate of this society, has bequeathed to it the sum of £500, free of legacy duty, which sum he has by will directed "to be invested, and the interest thereof to be applied in such manner and under such conditions and instructions as the council of the said institution may think most expedient, for the purpose of presenting periodically a prize or medal to the author of a treatise on any of the uses or properties of iron, or to the inventor of some new and valuable process relating thereto, such author or inventor being a member, graduate, or associate of the said institution."

CONCRETE BUILDINGS.—At the quarterly meeting of the Northern Architectural Association, in Newcastle-on-Tyne, the president, Mr. M. Thompson, introduced the subject of concrete buildings. He said he believed architects would have to turn their attention to the adaptability of some new material for buildings, the cost of stone and brick at the present time being so very high. It was the duty of all practising architects to look out for some other substance, the use of which would bring buildings down to a reasonable cost, while, at the same time, they were sufficiently substantial. He did not believe that architects were either educated or employed to spend money, but rather

to save it, and therefore it behoved them to look forward and keep up with the times. He had tried concrete in two or three instances in Newcastle, and had found it very much cheaper than either brick or stone. They also attained another object, and that was securing a wall, where space was limited, of great strength, with less thickness than would be necessary if it were built of brick or stone. It was a very admirable substitute where great heaps of gravel or slag were accumulated; for while such refuse was available for scarcely any other purpose, it afforded an excellent material for the formation of concrete buildings.—*Builder.*

TO CORRESPONDENTS.

IRISH SILVER.—Native silver was found in a bed of iron ochre in Cronbane, but this deposit has been exhausted many years ago. It was also found and still exists to some extent in association with the lead ores at Ballycorus mines.

STRONGBOW'S TOMB.—The reputed tomb of Strongbow in Christ Church Cathedral underwent a repair in 1567. A large portion of the rents of the city used to be paid in former times on this tomb, and this occurrence, it was supposed, led to some care that was taken in its preservation. It cannot be said, however, that the tomb presents evidence at the present day of the very great care that was said to have been taken.

THE OLD THOLSEL.—This old building where the municipal affairs of the city were once transacted to some extent, was built in 1683 at the expense of the Corporation, i.e., the citizens. It is among the things that were.

RICHARD CASSELLS.—Richard Castles or Cassells was the architect of the old Parliament House, the Lying in Hospital, Great Britain-street, and some other public and private buildings in this city and throughout Ireland. He was a German by birth, but was brought over to Ireland between 1730 and 1740 by Sir Gustavus Hume, of Fermanagh. He designed much for the Duke of Leinster's family, and while so occupied he died, we believe, at Carton, and lies buried in Maynooth Churchyard.

THE BELLS OF ST. GEORGE'S.—The fine peal of bells in this church was presented by the architect, Francis Johnston, in 1829, but for several years they have not been rung. We think this reflects very little credit on the parish; and it is a poor way of showing respect to the memory of the munificent architect, to whom Ireland is also indebted for the foundation of a school of painting, sculpture, and architecture.

THE POST-OFFICE STATUES.—These statues were executed by John Smyth, the son of Edward Smyth. The central figure is Hibernia, with Mercury and Fidelity on either side. With the exception of the pediment, which is Portland stone, the rest is Irish granite.

THE GOVERNMENT AUDITOR.—The next Borough Balance-sheet will have to pass under the scrutiny of a Government auditor. As a sign of the times, we would remind you of the letter of the Under-Secretary received a few days ago by the Corporation, submitting an order of the House of Commons for a return of costs and expenses incurred in promoting, opposing, or watching the progress of bills, from the date of the former return, eight years ago, till the end of the session of the present year. This return, when it is made, will no doubt be an "eye-opener" to many a one. It is to be regretted that the return did not take place a month ago.

"A VISIT TO EPPS'S COCOA MANUFACTORY.—Through the kindness of Messrs. Epps, I recently had an opportunity of seeing the many complicated and varied processes the Cacao bean passes through ere it is sold for public use, and, being both interested and highly pleased with what I saw during my visit to the manufactory, I thought a brief account of the Cacao, and the way it is manufactured by Messrs. Epps, to fit it for a wholesome and nutritious beverage, might be of interest to the readers of *Land and Water*."—See article in *Land and Water*, October 14.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & CO., Homoeopathic Chemists, London." Also, makers of Epps's Cacaoine, a thin refreshing beverage for evening use.

MANUFACTURE OF COCOA, CACAINE, AND CHOCOLATE.—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—See article in Part 19 of *Cassell's Household Guide*.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

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We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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The Irish Builder.

VOL. XIV.—No. 310.

The Growth of Architectural Taste in Ireland.



URING the last quarter of a century, in Dublin and in other cities and chief towns in this island, there has been evidence of a growing architectural taste—slow, to be sure, but unmistakable withal. Our finest public buildings as yet belong to the architects whose names and practice are connected with the eighteenth instead of the nineteenth century. True, two or three of our most noted modern Irish architects lived into and practised early in the present century, but their career commenced before the close of the last. Gandon's greatest triumphs were achieved during the short-lived existence of our native parliament. Cooley died in 1784, but the Royal Exchange will live an enduring monument of his fame. Cassells, the architect of the old Parliament House and the Dublin Lying-in Hospital, preceded the demise of Cooley by several years. George Ensor, of whose history we know but the merest waifs and strays, has left us in the Round Room of the Rotundo an evidence of his ability and taste. John Mack, one of the competitors in the competition designs for the Royal Exchange in 1769, is worthy of mention in connection with one or two of our public buildings. Sir Richard Morrison, the pupil of Gandon, though commencing practice prior to 1800, was an architect of our own time, along with his gifted son. George Papworth commenced his practice, and designed some very commendable structures, early in the present century; and Francis Johnston, perhaps the greatest of Irish architects in the present century, commenced his professional career ere the close of the last, though his greatest works belong as a matter of fact to the present century. The variable and versatile taste of Francis Johnston may be seen in the Castle Chapel, St. George's Church, and the General Post Office. The former is a charming bit of Tudor-Gothic. St. George's Church, which is in the Italian taste, though possessing a magnificent steeple, yet, from its Pointed character, does not harmonise with the canons of the Ionic order it is wedded to. Despite this slight incongruity, St. George's Church is an admirable structure, and one which our citizens may feel proud of. Of more recent architects who have but lately passed from amongst us, we forbear to speak at present. The works of a few of them who have practised within the last quarter of a century are commendable edifices; and, despite the materials of their construction and their indifferent workmanship in some instances, they prove the slow but steady growth of architectural taste in Ireland.

We regret the want of that *esprit de corps* among Irish architects that allowed an Irish Institute to decay and die out from their midst, after its establishment upwards of thirty years ago. Had our native practising

architects held together, there would have been by this time a large amount of solid success achieved. A wayward fate, in the words of our national bard, seemed to have estranged them, and created personal difference and a general indifference towards the interests of their profession. We hope our present institute and our younger association will profit by the lessons taught by the failures of the past, and put their shoulders to the wheel, and, by a mutual and kindly recognition of each other's labours, elevate the taste for architecture and the position and practice of their honoured profession. Let them give no heed to the hypercritical onslaughts of amateur artists, or pseudo-architectural writers in reviews or magazines, who fire off their Roman candles and other pyrotechnic charges. Architectural taste may, no doubt, be injured by such displays, but it can never be served by such inane preachments. Let our young architects read, think, and study assiduously and hard, choosing the best models, not with a view to imitation, but with a desire for honest emulation. Copyism is but a sorry expedient; and he who allows himself to drift away for succour by travestying the works of others, will find himself one day destitute of thought, stranded and helpless, the willing slave of architectural scamps and speculating and demoralised clients and builders.

There is no insuperable difficulty in the way of founding a school or style of native architecture indigenous to the soil—a national style, neither an outrage upon art nor eccentric in its peculiarities. Ancient Ireland gave birth to a style or styles of its own, which existed intact, and exists still, though in ruins. The architecture of the Gael or early Christian Irish, though a mixture, had its own beauties apart. In the early churches of the Hiberno-Romanesque we have strength, harmony, and beauty in design and ornamental details; and it is not impossible for modern practice and taste to develop a national style suited to the age and the wants of the time. We do not desire to see evolved an excrescence stuck on to any of our existing ones—a conglomerate or *olla podrida*, neither one thing nor another. We do desire, however, to see a special characteristic given to the works of our native architects, similar to what the French and German, and of late some English and even Scotch, architects are giving to their works.

Let those students who prefer Gothic keep to Gothic with all their strength and all their mind, for that field is a boundless and inexhaustive one. In the region of Greek and Roman design, though there is little new to add in the way of ornament, there is much to develop in plan and arrangement. Where expense is not a primary consideration (though unfortunately it is) the architect has ample room, if he has the ability and power, to make the Greek and Roman styles stand forth in a form and dress to thrill once more the hearts of men. Despite the lack of public spirit in this island, or of a warm and earnest desire on the part of our nobility, gentry, and wealthy traders to encourage or foster architectural taste, yet there is no need why we should despair. It is in the power of our growing and practising body of respectable architects to create clients by the character of their works. There will always, we fear, be a section of unprincipled practitioners, who will be found to play into the hands of unprincipled and sordid clients and builders; but, in spite of these things, res-

pectable architectural practice can always assert its sway if it will, and if architects as a body are but true to each other. In little more than a quarter of a century we shall enter on a new era, and whichever young aspirant among us lives to greet the advent of the twentieth century, we hope he will have reason to take some credit and feel proud in having assisted to raise the practice of his art to its legitimate position. Will the young Architectural Association of Ireland be true to its mission? This is a question to which the future, and not we, will afford an answer.

TECHNICAL EDUCATION AND HANDICRAFTS.

WE have on previous occasions dilated upon the advantages of a course of technical instruction for our operative classes in the fields of skilled labour, and pointed out the methods by which it could be obtained. The City Companies, or what were once the ancient handicraft guilds of London, but are unfortunately no longer so, are tardily recognizing their duties, and are offering prizes for skilled workmanship. The efforts and the success attending are as yet only very small compared with what might be achieved if a really earnest desire was manifested on the part of these City guilds, which possess such an enormous amount of wealth accruing from trusts, bequests, and charities, having their origin in the munificence of citizens, craftsmen, tradesmen, and merchants of former times. These City Companies must be utilized in the future to a liberal extent for the purpose of technical education; and if a better use is not made of their resources shortly than what has been made in the past, a parliamentary commission will probably some fine morning wake them up from their lethargy, by taking possession of those vast trusts and utilizing them in the public service.

Among the guilds of the city of London which have lately or are at present doing some little service in the matter of technical education are: the Turners', Painters', and Haberdashers' Companies. Why is not a movement made by those guilds which strangely bear the names of building crafts which they do not assist or govern, although nominally bearing their names? The Carpenters', Bricklayers', Masons', Plumbers', and other kindred companies have not yet made any movement to raise handicraft to its proper position, nor have they offered a single prize to students or workmen.

On the 7th inst. the Turners' Company showed a good example to the other guilds of trade. In the presence of a large and distinguished company of ladies and gentlemen, the former being most numerous and including notably the Baroness Burdett-Coutts, prizes awarded by the Worshipful Company of Turners to successful competitors in technical education were distributed by the Lord Mayor. The scene of this pleasing ceremony was the Egyptian Hall of the Mansion House. For two or three days previous to the meeting a well-arranged museum of ingenious handicraft, comprehending the objects which had been adjudged worthy distinction, was on view at the same place. Many visitors, who had supposed that an exhibition of turnery would be chiefly of an ornamental character, such as is most commonly associated with the framework of carved furniture, were unprepared for the exclusively mechanical kind of work submit-

ted to their inspection, but were none the less gratified with the display. Horology was the subject illustrated by this collection, the work executed being the turning and finishing of the pinions of watches and chronometers and various forms of escapement. Competitors were at liberty to choose between escapement and wheelwork for their exercise of ingenuity and skill. The proceedings were opened by the Lord Mayor, who introduced Mr. F. O. Smithers, the Master of the Turners' Company. A statement having been made by this gentleman, the Clerk read the award of the judges, Sir W. G. Armstrong, C.B.; Sir John Brown, Mr. John Jones, and Mr. S. Jackson.

The formal presentation of the prizes then commenced, and the first prize of the year was handed to Mr. Lewis Donne for a chronometer-balance staff and rollers, which were practically true and of extraordinary hardness. This prize consisted of a silver medal and the presentation of the freedom of the company. The second prize, a bronze medal, fell to Mr. Henry John Manor, also for a chronometer balance-staff and rollers, showing workmanship of remarkable truth, squareness, and finish. Mr. Thomas Archer, an apprentice, aged eighteen years, received a certificate for a well-executed chronometer balance-staff and pinion.

It is to be hoped that these exhibitions will be imitated by the other guilds, as well as followed up by the Turners' Company. Classes of technical instruction should, however, be formed, and schools of art and handicraft established by these wealthy companies, with reading-rooms and libraries in connection.

Here in Dublin we once had a number of city guilds or companies similar to those in London, but they never possessed the wealth and influence of the London ones. These guilds or minor corporations in the last century played an imposing part in civic pageants, and they were a sort of feeders, as the London ones are, to the Corporation. The Municipal Reform Bill and other cognate measures relating to this country, have relegated these old guilds into all but obscurity, and for all practical purposes the old trade guilds of Dublin might as well not exist—in fact they only nominally exist at present. What are called the Freemen class of Dublin represent these minor corporations, but during the last century and a-half and upwards they have been a kind of political aids instead of mechanical aids. The Corporation of Dublin, which has absorbed their power and influence, has done nothing for the interests of Irish trade or handicraft. Coming into power under a new act of Parliament and amid the huzzas of "Corporate Reform," the reformation that this unhappy city has witnessed has been a downhill and sweeping retrogression. No free City library, no Corporate reading-room or museum, no public baths, no people's park—nothing but increasing dirt and increasing taxation to cheer the youth of Dublin, but everything to incense the people against their local rulers. How long this state of matters is to continue we cannot say, but an end must be reached before long. We preach reform, not revolution, though we are conscious little short of a sweeping revolution is required in Corporate matters to bring back this city to that normal condition which should distinguish its municipal government. One word to those few earnest men who are now endeavouring to instruct our working classes in sanitary knowledge. Let them not relax their efforts even tho' success does not crown their labours; and, while inculcating sanitary science, let them not forget to keep the matter—and the very important one—of technical knowledge and education before the masses. We will ourselves be only too glad in this journal to second all efforts in this direction, for the education of the workman must go hand-in-hand with the improvement and preservation of his health.

THE KINGSTOWN SEWERAGE.

WE revert to this question again, because it is an important one. We speak not in the interest of any patent or patentee, nor do we desire to recommend any process as against any other proposed on the part of a native or a foreigner. We say coolly and with deliberation, that any scheme that proposes to fling the sewage of Kingstown, Blackrock, or other adjacent districts into the Bay of Dublin, is a mischievous, mad, and a criminal scheme. We have heard quite enough about the force, or the supposed force, of the tidal currents on the shores of Kingstown and on to Bray; and we answer, that no series of observations or experiences exist to form sufficient data to bear out the theory that the current spoken of would carry out the deposits or outfall sewage to the sea. From what we know ourselves of the coast line and tidal action of the waters of Dublin Bay and harbour, we are convinced that the sewage would come back again as an accusing witness to the folly of the projectors of the proposed scheme. Let not the Kingstown or Blackrock Commissioners perpetrate or be a party to the mischief that the bungling scheme proposed for the city of Dublin, as far as relates to casting of sewage into our bay. Let Kingstown and Blackrock rather set an example to Dublin and other townships and cities, and utilise a valuable material that will help it to relieve the taxation of the district. We would ourselves prefer a system of irrigation wherever possible and feasible; but where not, the solid matter can be deodorised by more than one proved and practical process. Why perpetrate a system of sewerage that will first entail enormous expense, increase the taxation of the district, and finally end in certain failure? While there is ample time, and no need to retrace false steps, let the wisest, safest, most practical and economical scheme be adopted. Kingstown, by saving its valuable sewage, will create a property, and its Commissioners and those of the adjoining districts who do likewise will have reason to rejoice in a few short years that they hesitated in time, and by doing so acted in a manner to reflect credit on themselves and their improving townships.

IN MEMORIAM.

AN UNFINISHED COMPETITION ODE.

It comes, the day, when all will come to pass,
The curtain falls beneath a roof of glass.
Regrets and joys the closing scene environ—
'Tis always so in contact with cold iron.
Poets are born poets—so says the scholar,—
What says our townsman, Dr. Francis Waller?
Great at a Preface, greater at a Finis,
He sings the praise of Art, and Arthur, Cecil Guinness.
The phoenix dies, it suits its soul's condition;
So dies to live, our Dublin Exhibition.

Trinity College.

GE.

THE LAST DAYS OF THE IRISH EXHIBITION.

ON the last day of this month the Dublin Exhibition will be closed by a Viceregal ceremonial. It has effected good during the season, though, estimated as a whole, the Exhibition cannot, in justice, be accounted a great success. We will not refer to the faults and failings, or mistakes that have occurred in connection, but we trust that on the next occasion they will be avoided, and every thing that could give rise to similar mistakes. The Messrs. Guinness must receive their full meed of praise for their generous action. Good objects are seldom, however, unaccompanied by counteracting influences which, if not remedied in time, robs these objects of no small amount of merit. Mr. Lee, the manager, and Mr. Emden, the secretary, have acted throughout, we dare say, with the best intentions, and they have been fairly successful in many matters connected with the conduct of the Exhibition, but there were

other matters in connection which did not turn out quite so successful in their hands. In their future labours, should they continue in connection with the building, there is no doubt but they will both profit by their late experience in dealing with our countrymen, and will understand the nature and adjustment of Irish matters better. With these reservations, we must at the same time say that both these gentlemen are entitled also to some merit. We understand that the Loan Museum is a feature that will be retained, and on the re-opening of the building next season there will be additional attraction in the way of fine art.

There is one matter in relation to the final labours of the governing body which we are pleased to have to record. The order for the execution of the certificates and medals to be awarded has been secured by local firms on the honest system of a public competition. Messrs. Forster, Crowstreet and Mr. W. H. Woodhouse, of College-green, have respectively obtained the execution of these orders. Open competition is what should have taken place since the first inception of the Exhibition. In future exhibitions we would like to see more *bona-fide* native exhibits and ones evidencing the skill of artist and craftsman. In these days when technical education is the question of the time, proofs of the progress of our workmen should be forthcoming in an Irish Exhibition, and prizes should be provided for stimulating the talents of the worker. We would like to see a series of models executed by working men in all branches of the mechanical arts, and a place for their exhibition within the walls of the building now about to temporarily close.

As a wind-up to the ceremonial on the 30th, Mr. John Francis Waller has composed an ode—a new one, we hope, this time. Five hundred voices are to swell to the chorus of "All's Well that Ends Well"—but we must not anticipate the *denouement*.

PROPOSED MONUMENT TO THE "FOUR MASTERS."

WE notice with pleasure a project set on foot and supported by the racy pen of Sir William Wilde—that of erecting a monument in honour of the compilers of the "Annals of Ireland, the basis of our history. This is a work in which every individual in the land, no matter what may be his creed or party, may consistently assist in seeing realised. The four indefatigable and loving Franciscan brothers, Michael and Conary O'Clery, Peregrine O'Clery, and Ferfassa O'Mulconry need, in sooth, no monument to perpetuate their fame, but it is due to Ireland, at the same time, as a nation to honour their names by a lasting memorial. The monument, no matter what may be its material, Italian or Irish marble, (and Donegal granite or marble we would like to see used) will crumble away before their names fade from the history and hearts of Ireland and Irishmen. We will be very happy to receive subscriptions, however small, and shall hand them over to the proper quarter. This is a work in which the most zealous Orangeman or Roman Catholic, Protestant, Presbyterian or Dissenter can assist without losing caste. The soul of the great Four Masters were absorbed in their work, and their work has absorbed the soul of Ireland, and afforded it a communion for all unprejudiced minds, which must be a joy for ever.

Subscriptions have been received from the following, by Sir W. R. Wilde:—Lord O'Hagan, the Archbishop of Tuam, Lord Talbot de Malahide, Samuel Ferguson, J. T. Gilbert, W. J. Fitzpatrick, D. H. Kelly, Esqrs.; Ald. Plunket, Rev. C. P. Meehan, Sir B. Burke, Dr. Duggan, Bishop of Clonfert; Dr. Conaty, Bishop of Kilmore; Rev. Canon Pope, Jonathan Pim, M.P.; Very Rev. the Rector of the Catholic University, Mr. M. H. Gill, University Press; Messrs. Browne and Nolan, Mr. Kelly, Publisher; C. O'Donel, J.P.; Dr. Sheil, Ballyshannon; and others.

THE RE-BUILDING OF CARLISLE BRIDGE.

THE re-building of Carlisle Bridge is again dragged up, or rather dragged down from the shelf where our active Corporation have been putting it up and periodically taking it down for the last quarter of a century. The Lord Mayor, Alderman Purdon, Mr. Norwood, and Mr. Dennehy had a conference, or rather a talk, with some members of the Port and Docks Board, and we are told that the result is, that the latter body are anxious to promote the improvements. We have little doubt on this head. The upshot is, we are informed, that a bill is to be promoted to carry out the object. A draft notice of the bill and the draft of the bill itself is to be placed before the Corporation, and thence follows the usual law and parliamentary expenses as a consequence. This time, however (always providing that the intention is *bonâ-fide*), we hope to assist at some length in nipping designs in the bud, and keeping the expenses within their legitimate limits.

We believe that the enlargement or widening of Carlisle Bridge would meet all requirements and suit the financial condition of the city better than the re-building project.

Sooner or later another bridge will have to be constructed lower down to meet the growing traffic and wants of the city on each side of the river, and at some spot near to our present Custom House. The river harbour will have to be pushed out still further in course of time. Making improvements to suit present ideas, with the notion that it will suit our future exigencies, bespeak but poor foresight on the part of those entrusted with the management of either a nation, city, or town.

Once more we repeat that the enlargement of Carlisle Bridge and the necessary improvements attaching would be a measure amply sufficient for the time, always bearing in mind that no matter how large a bridge may be that is now constructed will not do away with the necessity that is sure to arise at no distant period, in rendering a new bridge further down indispensable.

LOCAL RULE AND LOCAL RULERS.

THE obtuse civic acrobats who so systematically mismanage our city are growing more and more ambitious as they grow older and more useless. The height of assumption and absurdity was reached a few days ago, when no less a subject was brought up for serious discussion than "The State of Ireland!" We could understand the state of Dublin being a meet subject for a civic debate, but this is the very subject that is constantly shirked, shelved, and roguishly avoided. Mr. Dennehy may be a very respectable citizen, and he may possess a love of reading, particularly if it be only for reference, or for the purpose of refreshing his rather treacherous memory, but we would honestly advise him and others of his kidney in future to confine their propositions and suggestions to the question of corporate instead of national rule. He and others are not elected to ape the representation of Ireland, but to attend to the wants of Dublin. It would more redound to his credit and that of his colleagues in the City Hall, if he would furnish us with a digest of the statistics of civic taxation and expenditure during the last quarter of a century, than of cutting such a ridiculous figure, and leaving ample room for the citizens to write him down a "muff." There is some consolation, however, in the fact that may inspire him with courage, that he is not the only one of his genus who is entitled to the name.

A parrot can be taught to repeat names or figures, and an automaton can sing and calculate, if no "ready reckoner" is at hand.

Yet with all these aids to memory, we do not see any increase of knowledge developing in our Town Council. A quarter of a century has now passed over since the subject of the improvement of the Liffey and Carlisle Bridge was made the subject of a motion and a debate by our local laggards. The renowned "Honest Tom" Steele, who was very fond of carrying a copy of Kane's "Industrial Resources" under his arm, was one time consulted as an authority on how to make the Liffey navigable from the city towards its source, but the *Fidus Achates* of O'Connell died in the vain attempt of pacifying Ireland, and left the river and its dirt to the safe keeping of its present enlightened, active, and most efficient (?) custodians. We have often asked before, and we do so again, what have politics to do with the business of the Corporation? It is simply a municipal election manoeuvre and a sham exhibition of would-be patriotism. While other practical and respectable corporations throughout Great Britain are doing all that is within their power to improve the cities and towns over which they rule, our counterfeit body are endeavouring and succeeding in making themselves more ridiculous each year. The chief business, we are led to believe, devolves on three committees, helped by any number of improvised sub-committees, who take up, as a matter of course, the matters referred to their tender keeping, and they report after a lapse of some months—the results of their labour generally amounting to *nil*. This *modus operandi* of dealing with pressing questions is only part and parcel of the chronic scheming that is carried on to stave over a difficulty or to shelve it altogether. We would not wonder in the least if on some future occasion (that if it be permitted) another great civic dig. does not get up and move a motion "On British Finance," and relieve the Chancellor of the Exchequer by developing "The Budget." In such an event, of course, the result would be something like the farrago of Paddy Kelly's. From one year's end to another we are very rarely afforded an opportunity of commending any project of the Corporation of this city. We sometimes think that we have discovered a germ of good worthy of approval, but when we patiently set ourselves down to examine the surroundings of the measure, we find that a job lurks underneath, or that it is otherwise put forth under false pretences. It is a singular fact that some of the most active proposers of municipal projects in which jobbery crops up are strong political and religious partizans—men who have for years politically and religiously jobbed, while with a lie in their teeth they pretended to advance the interests of the city. Let us only take up the history of the Paving of this city, and next the Water Works, and now the Main Drainage, and we shall find that some of the most active agents in these matters were men who were or are being personally benefited, as well as pitchforked into notice for simply performing their public duty, which by-the-by, they have never performed, or never will properly perform.

"The State of Ireland" is a very fine shibboleth, but the state of Dublin has furnished a "refresher" to more than one needy corporator, who served himself first, while the city was let go to the dogs. The forming of a committee of the whole house by the Corporation to inquire into the "State of Ireland" is one of the series of those ridiculous acts for which the present Corporation

is famous. Why inquire into the State of Ireland, while its capital is a normal cesspool of filth, neglect, and wretchedness? Why talk of the taxation of the country, while the enormous taxation of Dublin alone, brought about by civic incapacity, has crushed local trade, caused innumerable bankruptcies, and driven across the channel and the Atlantic many old and respectable citizens, shopkeepers, and traders? Why talk of the decrease of the population when it is a well-known fact that fever, small-pox, and other deadly diseases created by the neglect of Corporate duties, have murdered by far the largest quota in this city of our population than elsewhere in Ireland? Why talk of developing the industrial resources of Ireland, while the Municipal Council of Dublin are developing the city filth for the purpose of killing off by hundreds the working poor? Those who are helping to poison our people by conniving at the manufacture and sale of putrid food and diabolic drinks, had better hold their tongues in the face of high heaven, or God's wrath may smite them down in the act of ventilating their falsehoods.

Home Rule in dirt has been an accomplished fact. So "killing no murder" is one of the most appropriate texts that can be chosen by rulers, who with daring effrontery stand up to protest against the decimation of the people whom they are themselves decimating with as cold-blooded an indifference as ever characterised a savage race.

MARL OR CLAY SLOPES TO RAILWAY CUTTINGS.

IN some places railway cuttings have to be made through accumulations of marl or clay; their sides are liable to slip, while as yet engineers do not seem to have hit on a process by which this can be prevented. The sea-cliffs on a considerable portion of the Wexford coast are formed of marl, and they in general are liable to slip similarly to the sides of these railway cuttings. An examination of the sea-cliffs, however, show the cause of the slipping, and seem to suggest a mode by which such railway slopes might be made firm.

The marl in the cliffs is affected by two systems of cracks or shrinkage fissures, one transverse or nearly perpendicular to the coast line, while the other is lateral or nearly parallel to it, and it is to the latter that all the evil is due. The lateral cracks form in dry weather, and when the rain comes they catch the water, which saturates the marl and causes it to slip outwards. On the other hand, in those places where there are perpendicular cracks, the cliffs do not slip, for the water as fast as it falls runs off through them to the sea, but the marl in time is denuded into gulleys with intervening ridges. To me, therefore, it appears that artificial crack-like cuts might be made in marl or clay railway slopes, that would act similarly to the perpendicular cracks in the sea-cliff, and would prevent the slopes from slipping. Various ways of making such cuts suggest themselves, but what appears most practicable would be a large knife-like implement somewhat similar to the cutters used in the drainage of bogs and marshes, or an iron bar with a wire attached to one end might be driven down at the top of the slope, and subsequently the wire tightened across the slope whereby a transverse cut would be formed, or one end of the wire might be firmly fixed on the railway prior to the bar being driven, and thus the formation of the cut, and the driving of the bar would go on simultaneously. The cuts ought to be made in dry weather, so that their sides might contract prior to these being necessary as drains.

G. HENRY KINAHAN.

Geological Survey, Wexford,
Nov. 7, 1872.

ON CONCRETE BUILDING:

BEING AN INTRODUCTION TO THE CONSIDERATION
OF THE APPLICATION OF CONCRETE TO FIRE-
PROOF CONSTRUCTION.

By JAMES H. OWEN, M.A., Pres., R.I.A.I.

FOUNDATIONS.

Materials.— $\frac{1}{2}$ measure of Portland cement; $\frac{1}{2}$ measure of air-slacked lime sifted through a fine sieve, mixed together dry. 7 measures of sand and gravel, if possible of all degrees of fineness from peas to large eggs, or stones broken to pass through a 2 in. ring—the finer should just fill the intervals of the coarser materials. Then all to be mixed together dry and measured. The mixture of cement and lime to be then added, and mixed dry, and the whole tempered with as little water as possible; any more than will just moisten the whole is in excess. The most convenient mode of mixing is to prepare a sufficiently large mortar-board, say 5 ft. by 10 ft.; at one end form a shallow box, with three fixed sides, the fourth side next the middle of the board moveable. The sides to be as many inches deep as the concrete is to contain measures of material—if 1 to 7, it should be 8 in. deep (fig. 1). At 7 in. from the bottom fix a lath all round the three fixed sides. In using, the ready-mixed sand and shingle should be thrown into the box up to the level of the lath gauge, the surface should be levelled and struck with a straight edge resting on the top of the gauge, the cement and lime should then be added, and the surface struck also. It is plain that by this means the materials and measures in the exact proportions directed to be used are attained. The moveable side should then be withdrawn (this side can be fixed in its place when required like the tail-board of a cart), and the whole mass well mixed together. The best tool for this purpose is a long-handled rake like a four-pronged fork, with the prongs bent down about 4 in. When the mixing is complete, water should be added gradually, not thrown on in quantity, while the heap is still being turned, until the whole is sufficiently moistened, when it should be at once carried away to the work. Where practicable, it is desirable that the mixing should take place under cover.

It must be constantly borne in mind that by rightly using concrete we ought to get, as the result of the operations, a continuous slab, without joints, and of equable strength in every direction, and not admitting of any motion except as the result of fracture of the mass. In all ordinary brick or stone building the several parts are joined together by material of inferior strength, and the parts are capable of motion whenever a local strain is applied, the pressure resulting from which exceeds the resisting power of the mortar. This should not be the case in concrete building. With concrete, the whole wall from end to end, and from top to bottom, should form one continuous slab of artificial stone; and to attain this, not merely must each course be continuous in itself (for obvious reasons the work must be carried up in courses), but it must be attached to—cemented firmly to—the courses above and below it; and to effect this it is only necessary to leave rough surfaces, and to take care not to add any fresh concrete to a dry surface or edge. If any previously-laid stuff has dried, either in the same or in a lower course, moisten it, not to excess, before adding fresh concrete. For this purpose an ordinary garden watering-pot with a fine rose will be the most convenient tool.

It is plain from what has been stated that a foundation of concrete may be of much less bulk than one of masonry or brickwork. I am inclined to think that the accompanying sections would be found quite sufficient for all ordinary soils (fig. 2). These dimensions seem very small; but considering that a four-ton railway engine, travelling at forty or fifty miles an hour, and therefore acting with an impact infinitely exceeding the dead weight of the wall of any ordinary house, is borne by a sleeper 9 in. wide resting

on about 9 in. of ballast, there seems every reason to believe that such a footing as is shown on the sketches would be ample. To take another illustration: a man of average weight, say 13 stone, is able, with Indian snow-shoes on, which each would be under 2 superficial feet in area, to stand on and walk over the surface of snow without sinking to any extent. The weight of a concrete wall 30 ft. high and 12 in. thick would be nearly three times the weight of the man, but the solidity or power of resistance to pressure of any ordinary soil in foundations is infinitely greater than that of snow. In wet or marshy ground I would recommend that the breadth of the footing at top should be increased by one-fourth, one-third, or one-half, even up to doubling it, forming the sides to the same batter of one to four, but without going deeper, unless it be found, on making trial, that a reasonably good foundation can be got at a moderate depth, in which case an ordinary footing should be laid on the firm stratum, and the wall commenced at its finished thickness so much lower down.

The most embarrassing site of all to build on is when one portion is soft and others hard and solid. The best plan is not to build on such a site at all; but if it must be done, I would recommend to reduce the footing on the hard ground down to having hardly any, or even no offset at all, and largely increasing the breadth of footing over the soft parts, so as to approximate as nearly as possible to an equal subsidence over the whole area. No rule or measure can be laid down as to the extent to which this should be done; we can only get a rough idea of the variation in quality from the different penetrations of a bar driven with about the same force into both sorts of soil; but where such differences exist, I think it would not be a bad plan to dig, in the soft places, a trench below the level of the intended concrete footing, and of about 2 ft. greater width, and fill it in with gravel without lime or cement, and level it to form a bed for the concrete footing. The additional resisting power would be nearly if not quite equal to that of the same amount of concrete.

It may not be amiss to give here an extract from Viollet le Duc,* describing the foundations of the great cathedral at Amiens, which he had an opportunity of examining down to the very bottom. He describes it as consisting “of a layer of brick earth 16 in. thick placed over the virgin clay; next is a bed of concrete 16 in. thick; next fourteen courses of from 12 in. to 16 in. in thickness each, of rough blocks of a sort of chalk, full of flint and very hard, which comes out in large masses; above this are one course of coursing stone and then courses of freestone under the surface.” . . . “Behind the facing of the foundations is a filling of large pieces of flint, of hard chalk, and ‘Croissy’ stone, grouted (‘noyé’) with a very hard and well-made mortar. On this artificial rock rests this immense cathedral. At Nôtre Dame, in Paris, the foundations are also made with extreme care, faced with strong quarry blocks of great thickness, the whole resting on a good soil, that is, on the lower sand of the Seine, which is coarse and of a greenish colour. As for the piling which is generally believed to be under the masonry of most of our great cathedrals, we have never found a trace of it.” And in a note he adds—“It is the same with this supposed piling under Nôtre Dame de Paris and Nôtre Dame d’Amiens, as with so many other myths current for ages as to the construction of Gothic buildings. *It would not be possible to construct a great cathedral on piles.* These buildings can be founded only on broad footings; the masses to be borne varying considerably in elevation, the primary condition of stability required a foundation perfectly homogeneous, and capable of continuous resistance under the surface.” Without endorsing all that is said as regards piling, in this respect M. Viollet le Duc seems to be led away by the enthusiasm inspired by his subject. You have in the last

sentence an exact description of a perfect foundation, and such as *you can only be sure of getting* by using concrete.

We will turn next to what in ordinary specifications would be comprised under the heads of “Mason, Stonemason, Bricklayer, and Pavior,” and, in substituting cement for each and all of these, we must bear in mind the nature of the material proposed to be used, and the qualities belonging to it which distinguish it from the materials in ordinary use. The only operations it undergoes are mixing the materials and casting them in a mould; for, however it is applied in detail, or whatever we call the machinery employed, it comes practically to this, that it is cast in a mould (though the moulds differ in some respects from those in ordinary use for other materials), and when so cast the whole mass is homogeneous, without joints, of great cohesive strength, and impervious to moisture. We shall never rightly appreciate concrete and the mode of using it unless we put out of our heads that it is a mixture of cement and gravel, and all associations with ordinary combinations of lime and brick or stone. We shall best realise the work to be done if we fix in our minds the idea of cast iron. Just imagine a sort of iron which can be moulded cold, in a leisurely manner, and which is only about one-twelfth as strong as common iron, and you have then the right sort of ideas with which to begin working in concrete. There is only one other element to bear in mind, but it is too important not to mention it separately, and it is this—that every other material used in building, except the hard granites and most compact limestones, depreciate with time and exposure, and require an initial excess of material to be used, and all sorts of surface applications, constantly renewed, to preserve them, whereas Portland cement concrete is permanent and durable under all circumstances, and increases rapidly and enormously in strength, and continues to increase—but in a continually diminishing ratio—for as long as observations have up to the present time been made upon it. This is a most important quality, as it enables us to use it with great economy of material, and with the certainty that if it bears the weight imposed on it at first, it will continue not merely to bear it, but will become continually more able to bear it as time elapses.

The first portion of the “mason’s” work to be settled is, of course, the walls. For an ordinary two-storey house, with walls not exceeding 24 ft. high, 9 in. is quite sufficient thickness. For walls above that height I would recommend that the thickness should be increased by about 3 in. for every 6 ft. added to the height—of course taking advantage of the occurrence of the floors to reduce the thickness, as shown by sketch of an ordinary three-storey house (fig. 3). As concrete hardly arrives at its initial strength in less than a month from the time of mixing, it is evident that it is very unsafe to fill up the walls to a great height with too great rapidity. I believe that it will be the safest course to build at the rate of only about 3 ft. of height per week, and then let the work rest and consolidate for a week; this would give a rate of building of 6 ft. per month, which at first sight may appear to be slow progress, but, considering the great rapidity with which the internal finishing of a concrete house can be carried on, the total time occupied in building would not exceed what would be required with ordinary materials. In building the walls, as in the foundations, care must be taken to moisten the surface of old work before adding fresh concrete; and this, as before stated, is best done by watering through a very fine rose. As a concrete wall is intensely hard, its surface will be subject to damp from condensation. In inferior houses this may probably be met sufficiently by covering the inside surface with very rough mortar plaster, and washing it with two or three coats of thick lime-wash; but for houses of a better class the walls may either be battened or built hollow. If battening be decided on, provision must be made for fixing the battens as will be described

* *Dictionnaire d’Architecture*, IV., pp. 175-7.—Art-Construction.

hereafter. If the walls are to be built hollow, the simplest course to adopt is to lay on the footings a series of brick on edges, tailing into the spaces to be filled by the inner and outer concrete walls, and set about 3 ft. apart, and on these to lay a piece of plank in the direction of the length of the wall, tapered on its cross section and notched to pass down an inch or two in the bricks, which it will keep in their places during the operation; the concrete is then filled in and well rammed up to the level of this plank core, after which it is removed and another course of bricks is laid, breaking joint with the previous course, and the operation is repeated. As regards the thickness of these walls: the inner wall should not be less than 4½ in. thick, nor the outer one than 8 in., and of course the concrete must be carried the full thickness of the wall round all openings.

I purposely refrain from attempting any description of the various forms of moulds or machinery for forming concrete walls; each practitioner has his own invention—most of them patented,—but one and all answering the old description, “The one is as good as the other, and a great deal better too,” if we may judge from the puffing advertisements that meet one on all sides in the professional prints; but if it be desired to act without having recourse to any of these patentees, I would recommend the following course to be adopted:—Provide a sufficient number of stakes of squared timber, say 4 in. by 4 in. about 3 ft. long, tapered and sharpened at one end; having excavated the trenches ready for putting in the concrete for the footings, before doing so mark out by lines the thickness of the walls plus twice the thickness of the planking necessary to form the wall-moulds, and drive the prepared stakes into the ground hard enough to keep upright during the filling of the trenches, and at such places, at angles, and along the length as will be convenient for the future uprights to support the planking, as shown by sketch (fig. 4). If necessary, the width of the footing may be increased where the stakes occur, in order to surround them with the concrete. When the stakes are withdrawn after the footings are set there will be a set of sockets provided, into which posts of the same scantling may be set; these can be easily plumbed, and tied together on top by ropes or bands of iron or strips of timber. Then it is only necessary to slide in planks, and the mould for the wall is complete. To keep the planks apart, cross pieces of the required length can be jammed between them, and removed after the intervals between them have been packed with concrete. Such an apparatus can be prepared anywhere, and worked by anyone who can use a plumb-rule.

We next come to the formation of the openings. If a mere hole in the wall is intended, a core, solid or hollow, will be inserted of the proper size and at the proper level; and, in building with concrete, every hole must be foreseen and provided for beforehand, whether it be for drains, air, water, or gas-piping, or tubing for bells: after-boring must be avoided as far as possible. For openings intended to be filled in with windows, doors, or grates, frames or moulds must be made of the shape and size of the interior of the opening; these need not be of the whole height, as they can be raised from time to time until the proper height is attained, and in this way one mould would suffice for several openings of different heights, so long as the width and form of head were the same: thus, if the windows are segment-headed, and the same width in all the storeys, but varying in height—say 7 ft., 6 ft., and 3 ft. 6 in.,—if the mould be made to fit the upper 2 ft. of one it can be used for all; and in the same way with doors—no lintels will be required in building with concrete, because it forms its own lintels, and requires no arch over it. And here let me call your attention to an ancient example of a concrete lintel given by Viollet le Duc in the *Dictionnaire d'Architecture* under the article “Béton,” p. 206, vol. 2:—“We see in the castle of the city of Carcassonne windows and doors of the end of the eleventh

century, the lintels of which, of considerable bearing, are formed of concrete run in a mould. We give a sketch of one of these windows: the lintel *a* is of concrete of extreme hardness, and we have not seen one of them broken by the loading, which, however, is considerable.” He adds in a foot-note—“The shaft which divides this window into two parts is of white marble from the Pyrenees, as also are the base and capital; the jambs and second lintel *b* are of green sandstone. The constructors thereby have admitted that a piece of concrete was less fragile than the natural stones, when supported only at its ends, and loaded in the middle. This lintel is only 9·84 in. thick, with a bearing of 3 ft. 7½ in., and a breadth of about 11·8 in.” You will perceive that the floor girders rest immediately on it without any intervening wall-plates. This example is of great importance as giving confidence in the right use of the material.

All frames must be made without joggles, because it is evident that if the horns or joggles are left on they must be bedded in the work as it proceeds, and any after repair would be very difficult.

For fireplaces and chimneys, the breasts should be constructed in the same manner as the ordinary walls. A simple mould of three planks will enable the opening to be formed up to the arch; this and the gathering should be formed in one mould of sheet iron or zinc on a timber frame somewhat similar to those very admirable articles made of terra-cotta, and queerly named “oncomes” by the Scotch manufacturers. A timber drum about 2 ft. long, with a handle for drawing it up, will serve as core to the flues, which cannot by this means of building be left foul or gathered too quickly. Almost any amount of corbelling can be done most easily and economically with concrete, and fireplaces can be put in positions that would be considered impossible in ordinary building; flues can be left for ventilation also with great ease. The only precaution which I would recommend is not to carry ventilation flues up to the top of a chimney-shaft, but to give them outlet just over the roof at the bottom of the shaft, so as to avoid return smoke, the nuisance of which is a very dear price to pay for ventilation. Outside the roof preparation should be made for fixing the flashings by bedding thin laths of deal in the course they are intended to take, which, when withdrawn, will leave a groove into which the lead can be pinned. All offsets and the top of the shafts must be left rough and afterwards moistened and finished with fine cement mortar, well trowelled and sloped to throw off the wet. I would recommend also to bed on top of each flue a length of flue-lining, projecting about 4 in.—it will assist the draught and save the arrises round the flue from wear and tear.

No wall-plates, tassels, bond-timber, or any such thing must be bedded in concrete walls. The plates for the roof will be bedded on the walls, and all those for carrying floors on corbel courses of concrete, which can be easily formed by attaching a mould of the shape and size required to the face of the wall at the proper height, and can be afterwards covered with plaster so as to form a cornice to the room. For hearths, the joists should be trimmed to the size required. A strong fillet of deal should be fixed against the inside face of the joists, with rough boarding thereon sufficient to bear the weight of the concrete until it sets. The box thus formed should then be filled in with concrete extending to the back of the fireplace; and by finishing the surface with fine stuff, well trowelled on the face, you will have trimmer-arch, hearth, and back hearth all in one solid block, and perfect security against fire. This operation had better not be done until the floors are laid. From what has been stated, there will be no difficulty in constructing any portion of a building which may not have been described, bearing in mind that any width of opening can be spanned without lintel or iron arch-bar, and that all idea of spreading may be left out of the calculation

of the jambs; it is only necessary to give them mass enough to sustain the load pressing vertically upon them. There is no lateral pressure, provided the mould is kept up until the concrete has consolidated. In all building operations over-haste is the evil of the day, and this is specially dangerous in concrete building.

It may be convenient now, before passing to what is usually cut-stone work, to describe the nature of the materials. For the sake of economy, I have recommended a mixture of air-slacked lime with the cement in the foundations, but in the shaft walls cement only should be used. It should weigh not less than 112 lbs. to the imperial bushel; if much lighter than this, it cannot be depended on, and should be rejected. It will be safest, I think, to adhere, for the body of the work, to the same proportions as given for the concrete in the foundations—1 to 7,—but finer stuff should be used for some purposes: thus for forming the quoins, the angles of jambs and arches, a mixture of 1 to 3 or 4 should be used, rejecting the coarser materials. This fine stuff will take a sharp arris from the mould, and retain it, and save a good deal of time in the after-finishing. All corbelling and wherever great strength is required should be done with even finer stuff, say 1 to 2, as the strength of the mass decreases very rapidly with the increase of the quantity of sand or gravel, and for this reason I would not recommend the common practice of inserting in the heart of a concrete wall lumps of stone; it should never be done where strength and coherence are of importance.

Now as regards the cut-stone work. Suppose that a hall is to have a floor not boarded, and steps that would be stone ordinarily, the proper course will be to fill to within 3 in. of the finished level with any dry rubbish, level the surface, fill in with concrete and float it over to the required level, and finish the surface with fine stuff, placed in a thin coat over the moistened surface of the coarse concrete, and continually trowelled until it is quite smooth and hard. The steps must be formed one by one, by fixing a board of the required height where the face of the riser will come, filling with fine stuff against the face of the board, and hearting with coarse stuff; the upper surface would be finished with the floor. If a flight of steps is required, they may be constructed with perfect safety, attached to the wall only on one side, if required, and of any projection, varying the thickness of material in proportion to the work to be done. The steps should be formed simultaneously with the walls, but of the finer material, say 1 to 2; the mould would be constructed of a soffit of timber planking, securely fixed, as it will have great weight to bear, a timber string at the end of the intended projection, and a moveable board of the size of the face of the riser. This moveable board will be fixed in its place for each step in succession, from the bottom to the top, each in turn being the foundation of, and incorporated with, its successor, so that the final result is not so much a set of individual steps, but one continuous mass with steps notched out of it. There is no difficulty, except in the case of winders, where the moulds of the soffits will be some expense and trouble, but of course infinitely less than carving out each separate stone. The soffit mould in this case may either be made of very thin boards bent to the shape, or a rough stage can be erected and a solid core formed by building with half mortared rubble up to the shape, and smoothing over with mortar. By this means great accuracy can be attained, and a surface of paper spread over the plaster will prevent its adhering to the concrete, although it would be no great matter if it did, as the soft mortar could be very easily removed.

As regards window cills, it may be asked, Why have them at all? But as this may be considered an unsatisfactory mode of getting rid of the subject, it may be as well to provide for them. In building the walls, the bottom of the opening left for the window

should correspond with the bottom of the cill; and in proceeding to form the cill, a board should be fixed so as to form the rim of the inside face, and a mould should be made in the form of a box with a bottom and one side and two ends; on the bottom a fillet should be fixed to form the throating. The box, when fixed in its place, would be filled, and the upper surface formed by drawing a mould formed to the shape along its length just as an ordinary cornice. All cornices, eave, string, and barge courses would be treated in a similar manner; but it should be matter of consideration whether the finishing of all continuous moulded faces would not be executed more cheaply if run in the ordinary way than by casting in a continuous mould.

In building the walls, projecting corbel courses have been left all round them. On them the tassels will be laid, and the joists on the tassels. On the upper surface of the joists I would suggest that a fillet should be fixed of the same thickness as the floor, and that then a skirting of cement should be run round each floor. My reason for this is, that it obviates the necessity for inserting plugs for fixing timber sheeting. The inner face of the walls may be either skimmed over with lime-putty or whitewashed; the outer face coated with a very thin coat of fine cement, or tinted with a cement-wash; the ceilings and floors would be treated in the ordinary way.

As regards the mode of roofing, there is no necessity for any variation from the ordinary mode; but if it is desired to have a very cheap form of roof, I would recommend the following, the description of which I extract from a treatise on Portland Cement by A. Lipowitz:—

"1. The inclination of the framework of the roof (which must have an even surface) should be at the rate of one-half or three-quarters of an inch per foot. The rafters or joists should not be more than 2 ft. 3 in. apart, so as to give sufficient strength. Boards of 1 in. or 1½ in. are fastened on the rafters, and should be rebated. These are then covered with a layer of sand a quarter or half an inch thick, to produce an even surface.

"2. Strong brown paper, in continuous rolls, and as broad as possible, is then laid upon it so that each length overlaps the other by about 4 in. When the whole or a large part has thus been covered with paper, the mixture is put into a cauldron, in the proportion of 100 lbs. of tar to 180 lbs. of Portland cement. Care must be taken to heat the tar gently, and to mix the cement with it gradually, in order to prevent its boiling over. This mixture of tar and cement must then be laid as hot as possible on the paper with a tar brush. The next layer of paper is then laid on it, and smoothed with a light wooden roller. In this way the whole roof must be covered. In order to break the joints of the paper, begin the second layer with half the breadth, and proceed as before. The third and fourth layers are in like manner laid with alternate layers of the mixed cement and tar and brown paper.

"The last layer must be carefully covered with cement, and then strewed with sifted ashes to the thickness of a quarter of an inch. Next to the gutter is a board, covered with zinc, and projecting about 2 in. It should be laid on after the second layer has been completed, so as to be covered by the third and fourth. If there are any chimneys projecting through the roof, they should be surrounded with zinc immediately after the first layer has been finished, and before the gravel is strewed upon it. This zinc should rise 6 in. up the sides of the chimneys, and 3 in. upon the roof; the upper edges should be bent, so as to be let into the joints of the brickwork, where they should be carefully fixed with cement.

"3. The whole is then finished with a coating of sifted gravel containing about one third of dry loam truly levelled with rakes and scrapers.

"This work should not be attempted in rainy or frosty weather.

"The workmen should wear very light boots, or, better still, none at all, and should always stand on thin boards when working at the roof.

"The advantage of this system of roofing are:—

- 1.—A smaller quantity of wood is used.
- 2.—The roof, being flat, gives more room in the upper floors of the house.
- 3.—It is more convenient for constructing garrets.
- 4.—Protection from external fire, and affords easy access to firemen.
- 5.—If properly constructed, these roofs never require repair.

"Several roofs at Herschberg, in the Reisingebirge, constructed on this principle, are now twenty-two years old, and have never been repaired.

"A square foot of this roofing, without the roofing and including the labour, costs about 1½d., and Mr. C. Purkart, in Töplitz, guarantees roofs made under his superintendence."

I have tried this mode of roofing myself, and have every reason to be satisfied with it. It is, of course, much cheaper than the ordinary roof.

The imaginary house is now floored and roofed, but it still remains to fit it with doors, windows, grates, and chimney-pieces, shelving, rails for hanging up clothes, and the innumerable host of things comprehended under the title of fittings. All these must be carefully borne in mind, and provided for beforehand. The walls are like cast iron; they do not admit of the rough and ready driving in of plugs wherever a carpenter fancies—for preference into a flue, if it is at all possible to do so. These walls can only be pierced with great difficulty; the place of all those things must be fixed beforehand, and, while the walls are in building, swallow-tailed plugs of dry wood must be built in for the purpose of fixing them; and that there may be no mistake, every bit of carpenters' and joiners' work should be delivered on the ground before the walls have got many feet high; and if the plugs are placed in the right position, there will be no difficulty in fixing any of the joiners' work, except the door and window frames. These, I think, can only be properly secured by confining them in their places by jamb-linings and architraves which are themselves securely fixed to the plugs.

I think there remains nothing more to add as regards the use of concrete in ordinary houses; one built as I have been describing would be cheap, durable, quieter than one built of brick or stone, safer as regards fire, and free from rats and mice and other vermin. I propose to continue this paper by a consideration of the subject of fire-proof building in general, and the special advantages attending the use of concrete, and the modifications of the ordinary mode of using concrete, and the materials of which it is composed, which should be adopted in fire-proof buildings.

DR. CAMERON'S LECTURES ON SANITARY SCIENCE.

THE series of lectures on Sanitary Science which Professor Cameron has been for some time back delivering in this city are now concluded. They have, without doubt, achieved good; and the people of this city, rich and poor, stand in need of being often and often reminded of their duties, which they are so prone to neglect, in sanitary observances. In his concluding lecture, Dr. Cameron stated that one-fourth of the deaths that occurred in the United Kingdom resulted from diseases which were preventable by human agency. He believed that contagious diseases were produced from minute organized particles which were thrown out of the bodies of the sick, and entered those of the sound, and infected them. Non-contagious disease was also produced from organic matters, vapours, and poisonous gases. Beautiful experiments were made to show the phenomenon termed "Will-o'-the-Wisp," and the nature of various noxious volatile matters evolved from decaying

animal matter. Just in proportion as organic matter abounded in air and water, so would contagious diseases be certain to spread. Cold was unfavourable to the existence of disease germs, and rain washed them out of the air. Air heated to 260 deg. destroyed the virus of contagious disease. The public could get infected clothing disinfected at the hot-air chamber of the Corporation, Marrowbone lane. Disinfectants were not desirable, but they were infinitely preferable to bad air, and in cities at least they could not be safely dispensed with. Chlorine destroyed organic matter, carbolic acid and chloralum preserved it from rapid decay or fermentation. Sewers and all similar places should be constantly supplied with disinfectants, which cost but little, and often save lives. The importance of keeping houses, clothing, and furniture perfectly clean was forcibly insisted upon, and precise directions were given for the disinfection of houses which, Dr. Cameron said, to be done at all should be done thoroughly, by means of very large quantities of disinfectants.

We agree with much of what Dr. Cameron stated, but though disinfectants are useful, they are a sorry reliance to be depended upon in many cases. We would rather preach the doctrine of prevention than that of cure. If the evil of bad drainage and consequent foul smells are not counteracted in time by a little care, a cart-load of disinfectants in a house or a number of houses will be of little avail. Let cleanliness be rigidly insisted on, publicly and privately; and if education is to be made compulsory by law, so also must cleanliness. Sewers, for the time being, that cannot be properly got at for the purpose of thoroughly cleansing them when in a foul condition, will, of course, be the better of a dose of disinfectants as a temporary remedy, but not a radical cure. The poor as well as the rich should have a copious and pure water supply, and the City Analyst has it in his power, perhaps, to more often apply his remarks to the greater sinners in our midst—the Corporation of this city. Let our local rulers be first taught and compelled to do their duty in attending to the cleansing of our streets, courts, and alleys, and carefully examining the imperfect drainage of the town. If Dr. Cameron could lead to a sanitary reform in the Town Council of Dublin, his labours and the labours of others who are earnestly striving month after month to inculcate the lessons of self-respect and Sanitary Science, would bear greater results. We are, however, thankful to Professor Cameron for what he has endeavoured to do, and we hope he will renew his public lectures next season for the good of the commonweal.

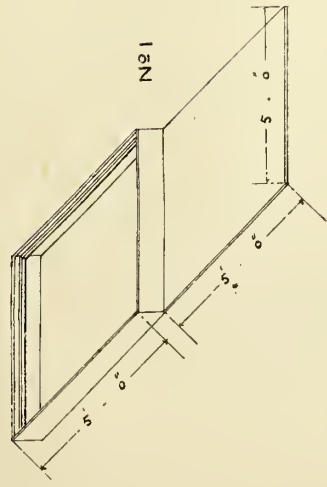
CURRENT LITERATURE.

THE MAGAZINES.

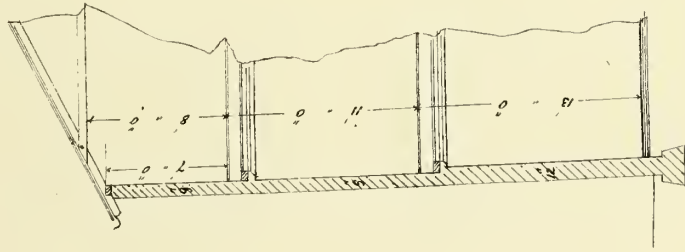
Blackwood deals vigorously again this month with Cabinet questions. "Our Autumn Manœuvres" is the name of a forcible political paper, which will no doubt please the party in whose interest it is written. The story of the "Parisians" proceeds, but not in a very lively manner. Mrs. Oliphant's recent work on Montalembert is reviewed with a good deal of eulogy. The other papers are not above the average.

The *Gentleman's Magazine* is lively, readable, and varied. Mr. Hopkinson deals with Mr. Bradlaugh's "Republican Manifesto" in an article termed "The Republican Impeachment." Mr. McKenna contributes a good novelette on "Love and Money." Mr. Walford's paper on "Ancient Glasgow" is interesting, but we think that the book of Mr. Tweed, the Glasgow publisher,—"Glasgow, Ancient and Modern,"—has been made use of to a good extent for reference. Joaquin Miller continues his excellent poetical contributions, "The Isles of the Amazons." The serial story of "Stranger than Fiction" keeps up its interest, though it has reached its thirty-sixth chapter. The number is a thoroughly good one.

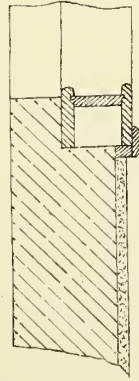
Concrete Buildings.



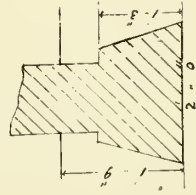
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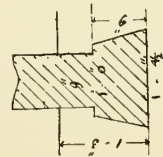
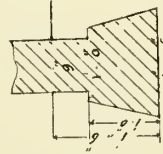
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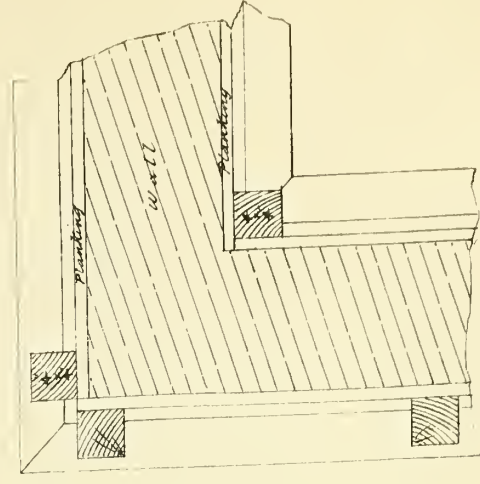
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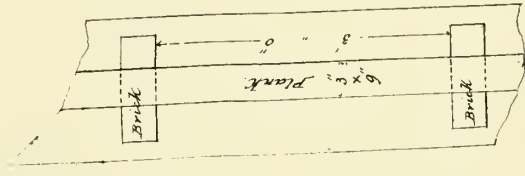
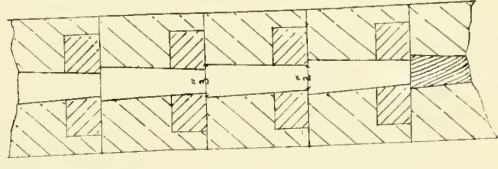
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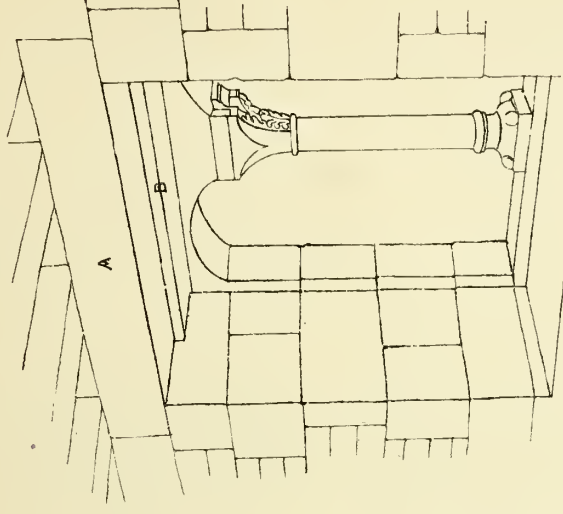
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Window... Castle of Carcassonne.

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Temple Bar has an article on "Cowper as a Satirist." There is very little satire in the poems of Cowper; he led a too retiring and secluded life, and mixed too little with the throng or dealt with the current questions of his time to make a satirist. "Royal and Imperial Jokers" is a paper that will afford some amusement. Mr. Wilkie Collins's story, "The New Magdalen," is growing with fresh interest. Mr. Edwin James's "Reminiscences of the American Bar" is a lively and well-written article.

Cornhill contains some good papers. "The Scientific Gentleman" is a very amusing contribution. "The Gonds and Bygones of the Eastern Sathpurus" is full of eastern mysticisms. "The Duc de St. Simon" is a somewhat searching review of the life and character of that singularly talented French nobleman. The story of "Old Kensington" is reaching its end by quiet and goodly strides.

Tinsley is light and lively. "Sheridan's Critic," "Christian Skinflints," and "A Tomb by the Sea," are good papers; and the stories, "A Pair of Blue Eyes," "London's Heart," and "Diana's Temple," are equally good. The poems on "Beautiful Names" are continued; this month it is Ethel, and it is finely rendered.

Belgravia has some very fine illustrations. The editor contributes a new story, "Strangers and Pilgrims," and Mr. E. Courtenay gives us a cheering paper, "In a Country House." "Homburgh in November, 1871," by Mr. Hutton, is a rather extreme picture of the noted place. The great George Augustus Sala, whose jolly red face and red nose (to use his own words) were formed by nature, not unassisted by art, continues his very amusing papers on "Imaginary London," in which there is very little imaginary after all, save in the disguise of names.

London Society is good in story and illustrations; the latter, as we often before remarked, are generally good. Captain Reid's "Brother against Brother," and Mr. Frederick Arnold's "New Experience," are fair. Mr. Reade's story of "Simpleton" is not the best of his efforts.

The *Argosy* contains some very good light literature articles. "Larry's Hut," "At the Green Dragon," "Parole d'Honneur," are among these. The editor's story, "Within the Maze," continues well. The poetry in this month's number is also good.

The *Fortnightly Review* has two or three very readable papers. Mr. Sully criticises "Fowler's Inductive Logic" with some insight and force. "The Gold Question and the Movement of Prices in Germany" is an instructive paper, by Mr. Cliffe Lester. The opening article of the magazine, "The Clerical Party in Germany," is seemingly well debated from a certain standpoint, but we cannot touch the question further here.

St. James's has an Irish tale, "The Potheen Makers," before alluded to, and the "Lonely Life." Sir John Bowring's excellent translations from the foreign poets are absent this month. The serial story of "The Cravens of Cravenscroft" continues well, and has reached its fifty-eighth chapter.

Fraser's Magazine gives us this month some able papers, solid and interesting. "Movements in Star Depths," by Mr. Proctor, and "New Tales from the Norse," by Mr. Ralston, with "Mis-Education," by Mr. Wright, are worthy of perusal. There is an exhaustive paper on the "Autumn Manœuvres," by the Chaplain-General, which will be found full of interest and very suggestive.

The *New Monthly* (which by this time of its life is pretty old instead of new) contains a number of excellent papers. "Twenty Years Ago," by Sir John Bowring, "Forgiving One's Friends," are good. "The Garden and Spring," translated from the Persian, is an admirable story. "Boscobel," the leading story, by William Harrison Ainsworth, progresses well, and sustains its interest.

St. Pauls is very fair and varied. Mr. H. Holbeach's "Right and Wrong," and "If I were a Dictator," are very good. Jean Ingelow's "Off the Skelligs" is capital, and

Mr. Proctor talks to us very learnedly on "Whether November Meteors will appear this Year or not." All the articles are instructive, and of course readable.

The *Transatlantic* has an able paper on "The Study of Ancient and Modern Languages." There is a new poem by Longfellow, and a good descriptive sketch of New York Women by Dr. Holland. The number, as a whole, is commendable.

Et Cetera, one of our new aspirants for public favour, is well written and made up. Among the best papers are "Peat Dwellings and other Human Habitations," "The Coming Reform Bill," and "Glynarth." Go ahead in goodness, young one, and you will have the good wishes of the people and their support, etcetera, etc.

CIVIC LYRICS.—No. XXV.

THE PEOPLE'S PARK.

Air—Off She Goes.

A.D. 1999.

There's land to let for the poor and rich—
A slice cut off from the city's ditch.
As money is scarce, there's need to job;
Who will bid for this precious "slob"?
In Nineteen Hundred and Ninety-Nine
The city perhaps will see some sign;
And folks may ask, by way of a lark,
When will they open the People's Park?

The Committees One and Two and Three,
Where will they or their Chairmen be?
The Puddle will then have ceased to run,
And the Liffey dried up beneath the sun.
The oozy bed of the Irish Styx
Will show a harvest of bristling bricks.
"The lot to be let"—God save the mark!—
With plenty more in the People's Park.

Lands for sale there will not be a bit,
And Committees then will cease to sit.
The Mayor will pledge his sword and mace,
And die, the last of the Jobbing race!
In Nineteen Hundred and Ninety-Nine
There is sure to be some startling sign.
No lamps will be needed after dark,
And cows will graze in the People's Park!

The coming time, whenever it comes,
Will find us rid of our city slums;
And men who have done this good by stealth
Will all have died with the Board of Health.
The Town Clerk and Borough Engineer
And the Law Agents will disappear!
The dogs will live on Peruvian bark,
And the swans will sing in the People's Park!

Our beautiful New Main Drainage Scheme,
In days to come, will go by steam;
Hydraulic pressure will work so high,
Our Waterworks will be in the sky!
In Nineteen Hundred and Ninety-Nine,
Look out, ratepayers, for a sign!
Fountains will play by electric spark,
To water the streets in the People's Park!

Oh! how will we build a monument
To Corporate chiefs of good intent,
Who spent their lives for the public good,
In turnip squeezing, to make new blood,
And growing melons on Crab Lake Strand
To nourish the poor in Mudfoundland?
Raise a turnstile high, to mark
Their patriot graves in the People's Park!

CIVIS.

NEW ROMAN CATHOLIC CHURCH, KINGSCOURT, CO. CAVAN.

(COMMUNICATED.)

THIS church, was consecrated some months ago. Although not entirely completed, it is open for divine service. The building was erected by Messrs. Kelly, of Granard, from the plans of Mr. William Hague, F.R.I.A.I., of Dublin. It consists of nave, aisles, transepts, chancel, sacristy, side chapels, and tower. The entire length from principal entrance at west end to apse is about 100 ft.; width of nave, 27 ft., and aisles 10 ft. each; the height of eave looks to be about 30 ft., and from wall-plate to ridge, 20 ft.; the length of nave rafter might be estimated at 23 ft., which would be a very close approximation.

The style is partly Gothic. The walls are

built of hammered sandstone from a neighbouring quarry, with chiselled limestone dressings carted from the vicinity of Carrickmacross and worked on the ground. The tracery of the windows (with the exception of the radii of the wheel-window in principal gable) is wrought from the same material, the latter being sandstone. The tower is built only as far as the base of spire, which, when added to the work, will render the whole construction a unique and handsome edifice. It stands on a charming elevation to the west of the town, and within a few yards of the old chapel. One is compelled to admire the exact proportions of this building, and the lovers of a well-designed structure cannot help being pleased with the whole conception.

Entering the church by the principal door, we find the organ-gallery over head; and passing through glazed doors of pitch-pine, we are not disappointed with its internal appearance. The walls of the nave are supported by Gothic arches of sandstone 2 ft. thick, springing from polished Aberdeen granite columns about 1 ft. 4 in. in diameter, with Bath stone caps and limestone bases. The front wall of the organ gallery is also arched and supported by columns of Middleton marble, which, as well as the polished granite, was supplied by Messrs. Sibthorpe, of Dublin. A handsome sandstone arch surmounts the gallery rail, which is also pitch-pine, panelled, &c. The ceiling, which is inclined with the roof, is formed into panels of pitch-pine, showing diagonal V joints, and suitably moulded between the principals, every alternate one of which is trussed with circular ribs, springing from corbels and forming a Gothic arch. The termination of the nave is marked by a principal, extra trussed, trefoil fashion, and supported by light shafts of Caen stone. The ceiling of the apse is also panelled, having circular mouldings to mark the hips; and the ceilings of the transepts are panelled and moulded in a similar manner. The sacristy, side chapels, &c., are, I need scarcely say, in keeping with the remainder. The entire cost of the building cannot be less than £6,000; the estimate of Messrs. Kelly amounted, I have heard, to close upon £3,000 for workmanship and the supply of part of the materials; all stones, including marble columns, lime, &c., were supplied by the committee, and everything needed was carted to the ground gratuitously by the parishioners, who deserve all praise for their efforts in forwarding the work. The lead lights for the windows are glazed with cathedral glass of three shades, and manufactured on the ground by Mr. Farron, of Marlborough-street, Dublin.

Mr. Hague, although but a young man, has several buildings under his supervision; and I believe it was his design that was accepted over those of other competitors for the bishop's residence at Mullingar. I also understand that he is the architect of the new college at Cavan, of which his father is the builder.

Although considerable credit is no doubt due to the Messrs. Kelly for their attention and perseverance in carrying out the ideas of Mr. Hague, still I must notice a few defects in the workmanship which I wonder he would let pass. Here and there one meets with evident traces of haste or carelessness. Some of the springing stones of the arches are not true to the curve, and the south transept gable "batters" so much as to be noticeable; to sight it with the gable of the south porch will prove this beyond doubt, and even without sighting it in this manner, the vertical joints of the slates will expose the fault, which is no trivial one. I think the eave gutters have also too much projection.

The principal approach to the church from the town will require considerable remodeling, as it is lined with unsightly cabins, the floors of which, on one side, are 4 ft. under the centre of the street, without any attempt at the formation of a footway by the doors. Here and there on the other side the sense of smell is offended by the odour of the manure heap, which seems to be a pet with many of our people.

JEAN DE VEY.

"THE QUERIST."

BY GEORGE BERKELEY, BISHOP OF CLOYNE.

(With Notes by "Dublinensis.")

"FIRST PUBLISHED A.D. MDCCXXXV."

WHETHER the evil effects which of late years have attended paper money and credit in Europe did not spring from subscriptions, shares, dividends, and stock-jobbing? [A good deal of the evil effects of our present-day system of money-getting and money-lending, "kite flying," bubble company blowing, and stock-jobbery, will not only be felt in the present generation, but in the two next.]

Whether the great evils attending paper money in the British plantations of America have not sprung from over-rating their lands and issuing paper without discretion, and from the legislators breaking their own rules in favour of themselves, thus sacrificing the public to their private benefit? And whether a little sense and honesty might not easily prevent all such inconveniences? [These great evils have also been illustrated on a large scale of late years at home and abroad. Neither religion nor law is sufficient to keep men from injuring others to benefit themselves. Helping one's self at the public loss is not accounted dishonesty, even by those who preach the gospel, and are not content to live by the gospel. Lands are and have been over-rated in these islands as well as in the colonies, and the history of the late Encumbered Estates Court would point many a moral and adorn many a tale.]

Whether the subject of Free-thinking in religion be not exhausted? And whether it be not high time for our Free-thinkers to turn their thoughts to the improvement of their country? [It would appear that the subject of free-thinking in religion will never be exhausted. With free-thinking in theology and positivism in science, ignorant scepticism is likely to work many dire evils to society. We do not fear Science, and it is immaterial to us at the present moment whether man was originally a gorilla or not. Whatever our forefathers may have been, it is high time at least that their posterity, who have worn off their tails possibly by a prolonged sitting, should try their hands at a little work, for the improvement of their own position as well as their country's.]

Whether it must not be ruinous to a nation to sit down to game, be it with silver or with paper?

Whether, therefore, the circulating paper in the late ruinous schemes of France and England was the true evil, and not rather the circulating thereof without industry? And whether the Bank of Amsterdam, where industry had been so many years subsisted and circulated by transfers on paper, doth not clearly decide this point?

Whether there are not to be seen in America fair towns wherever the people are well lodged, fed, and clothed, without a beggar in the streets, although there be not a grain of gold or silver current among them? [There are places in the eastern and western world still as well as in 1735 where the people are well clothed according to fashion, and who carry on a good trade without a grain of gold or silver, and yet have no beggars among them.]

Whether these people do not exercise all arts and trades, build ships, and navigate them to all parts of the world, purchase lands, till and reap the fruits of them, buy, sell, educate and provide for their children? Whether they do not even indulge themselves in foreign vanities?

Whether, whatever inconveniences those people may have incurred from not observing either rules or bounds in their paper money, yet be it not certain that they are in a more flourishing condition, have larger and better-built towns, more plenty, more industry, more arts and civility, and more extensive commerce than when they had gold and silver current among them? [A system of barter has always preceded a system of tokens in the "precious" metals, or any other system

made precious by fixing an arbitrary value by law on such tokens. Barter, however, in modern times has its many great inconveniences. There is little to prevent a nation flourishing under the present system of currency, if her people honestly wills it, and the law throws no obstacles in the way.]

Whether a view of the ruinous effects of absurd schemes and credit mismanaged, so as to produce gaming and madness instead of industry, can be any just objection against a national bank calculated purely to promote industry? [On the first publication of the "Querist" by Bishop Berkeley (original edition), many queries were included relating to the sketch or plan of a national bank. The founding of a national bank to promote industry in Ireland seems to have been one of the early projects of the bishop's fertile brain.]

Whether a scheme for the welfare of this nation should not take in the whole inhabitants? And whether it be not a vain attempt to project the flourishing of our Protestant gentry, exclusive of the bulk of the natives? [A Protestant himself, George Berkeley saw it was impossible to promote the industry of Ireland without considering the great bulk of the population. Some of his queries about his co-religionists would give colour to the supposition that he was a bigot; but his life and works, taken as a whole, fully disprove any such belief.]

Whether an oath testifying allegiance to the king, and disclaiming the Pope's authority in temporals, may not be justly required of the Roman Catholics? And whether, in common prudence or policy, any priest should be tolerated who refuseth to take it?

Whether there is any such thing as a body of inhabitants in any Roman Catholic country under the sun that professes an absolute submission to the Pope's orders in matters of an indifferent nature, or that in such points do not think it their duty to obey the Civil government?

Whether since the Peace of Utrecht mass was not celebrated and the sacraments administered in divers dioceses in Sicily, notwithstanding the Pope's interdict?

Whether a sum, which would go but a little way towards erecting hospitals for maintaining and educating the children of the native Irish, might not go far in binding them out apprentices to Protestant masters for husbandry, useful trades, and the service of families?

Whether there be any instance of a people's being converted in a Christian sense otherwise than by preaching to them and instructing them in their own language?

Whether catechists in the Irish tongue may not easily be procured and subsisted? And whether this would not be the most practicable means for converting the natives? [It is to be deplored that the catechism of industrial arts was not more often taught in the Irish tongue since the days of Bishops Bedell and Berkeley, as well as the catechism of religion.]

Whether it be not of great advantage to the Church of Rome that she hath clergy suited to all ranks of men in gradual subordination from cardinals down to mendicants?

Whether her numerous poor clergy are not very useful in missions, and much influence with the people?

Whether, in defect of able missionaries, persons conversant in low life, and speaking the Irish tongue, if well instructed in the first principles of religion and in Catholic controversy, though for the rest on a level with the parish clerks or the schoolmasters of charity schools, may not be fit to mix and bring over our poor illiterate natives to the Established Church? Whether it is not to be wished that some parts of our liturgy and homilies were publicly read in the Irish language? And whether in these views it may not be right to breed up some of the better sort of children in the charity schools, and qualify them for missionaries, catechists, and readers?

Whether a squire possessed of land to the value of a thousand pounds per annum, or a

merchant worth twenty thousand pounds in cash, would have most power to do good or evil upon any emergency? And whether the suffering Roman Catholics to purchase forfeited lands would not be good policy, as tending to unite their interest with that of the Government? [From the land and in connection with the land the most of our national wealth and national evils have sprung. It would have been always a good policy on the part of our rulers to have rooted the people to the soil by giving those engaged in its cultivation a permanent interest in it.]

Whether the seaports of Galway, Limerick, Cork, and Waterford are not to be looked on as the keys of this kingdom? And whether the merchants are not possessed of these keys, and who are the most numerous merchants in those cities? [To the above-named ports those of Dublin and Belfast may be added. In many of our seaports, at the present day as well as in Bishop Berkeley's time, a large number of the merchants of the above cities were not natives, although their business helped to a large extent in fostering Irish trade. Many of our city merchants at the present hour are asleep to the benefits that are within their reach by having a tidal and navigable river under their nose, which, despite its bad smells, can float wealth to as well as from their doors.]

Whether a merchant cannot more speedily raise a sum, more easily conceal or transfer his effects, and engage in any desperate design with more safety than a landed man whose estate is a pledge for his behaviour?

Whether a wealthy merchant bears not great sway among the populace of a trading city? And whether power be not ultimately lodged in the people?

Whether, as others have supposed an Atlantis or Eutopia, we also may not suppose an Hyperboreum island inhabited by reasonable creatures? [We may indeed suppose the existence still of an unknown island in the northern seas, and we may also well suppose that our own island should possess by this time a greater number of reasonable creatures.]

Whether an indifferent person who looks into all hands, may not be a better judge of the game than a party who sees only his own?

Whether there be any country in Christendom more capable of improvement than Ireland? [None.]

Whether we are not as far before other nations with respect to natural advantages as we are behind them with respect to arts and industry? [And we still continue, though we have made great progress in some directions and retrograded in others since 1735.]

Whether we do not live in a most fertile soil and temperate climate, and yet whether our people in general do not feel great want and misery?

Whether my countrymen are not readier at finding excuses than remedies? [Excuses are the argument of the indolent in every state, but it must be admitted that a large portion of the people always deserve to be assisted who would be industrious had they facilities given them for exercising their industrial habits.]

Whether the wealth and prosperity of our country do not hang by a hair, the probity of one banker, the caution of another, and the lives of all?

Whether we have not been sufficiently admonished of this by some late events?

Whether a national bank would not at once secure our properties, put an end to usury, facilitate commerce, supply the want of coin, and produce ready payments in all parts of the kingdom?

Whether the use or nature of money which all men so eagerly pursue, be yet sufficiently understood by all? [The difficulty of obtaining money is pretty well known to all who have to fight the battle of life, yet the people as a whole are but half informed as to the use and value of money, however small the amount may be. The savings bank principle, or, as the Scotch proverb has it, "every mickle makes a muckle," is altogether discarded by a great portion of our country-

men, who could with ease put something by for the rainy day, but who won't. In the opinion of some of our "poor and proud" folk, it is a mean thing to save, and a proud boast to be extravagant.]

What doth Aristotle mean by saying—*λῆρος εἶναι δοκεῖ τὸ νόμισμα* (*de Repub.*, l. ix. 9)?

Whether mankind are not governed by imitation rather than by reason? [The majority of mankind begin and end their lives by imitating others in their worst instead of their best features. Originality in theft is more often exemplified than in acts of industry. The art of cheating will always we fear be practical, and it is certain to produce a good crop of inventors as well as imitators. To give a cogent reason for their acts even well-intentioned men would feel the greatest difficulty in doing.]

Whether there be not a measure or limit within which gold and silver are useful, and beyond which they may be hurtful?

Whether that measure be not the circulating of industry?

Whether the discovery of the richest gold mine that ever was in the heart of this kingdom would be a real advantage to us?

Whether it would not tempt foreigners to prey upon us?

Whether it would not render us a lazy, proud, and a dastardly people?

Whether every man who had money would not be a gentleman? And whether a nation of gentlemen would not be a wretched nation? [No amount of money can constitute a gentleman, though it may constitute a well-dressed, well-housed, and well-fed idler. A nation of such luxurious idlers would indeed be a wretched nation, and it is of course in this light that Bishop Berkeley viewed it.]

Whether all things would not bear a high price? And whether men would not increase their fortunes without being the better for it?

Whether the same evils would be apprehended from paper money under an honest and thrifty regulation? [No, not under an honest regulation, but the issue of paper money in an unlimited and reckless manner is capable of producing any amount of evil.]

Whether therefore a national bank would not be more beneficial than even a mine of gold? [A national or people's bank might be founded, and so regulated in the interest of industrial pursuits that it would become more valuable than an actual mine of gold. Money, 'tis said, makes money; but a people profitably and industriously employed in husbandry, arts and manufactures constitute the real wealth and power of a nation.]

(To be continued.)

DOINGS IN DUBLIN IN 1793.

ALTHOUGH Irish industries between 1782 and 1800 (representing the period of the Irish Parliament) had developed to a great extent, yet there were periods of great depression, during which the staple trade of Dublin and other cities suffered much. The weaving trade in all its branches on the Coombe and in the Earl of Meath's Liberty, even during the last ten years of our native legislature, declined, and the hardships endured by the loom-workers and small manufacturers in the South Dublin quarter were very great at times. The following summary from the *Anthologia Hibernica*, a well-conducted and excellent monthly publication of that time, will be read with some degree of interest:—

"Yesterday (May 9) the whole of the city was thrown into alarm by a report that a "Liberty mob" had risen, and were spreading plunder and destruction through the town.

Curiosity, of course, collected the populace in all quarters. The shops from Thomas-street, through Dame-street to Stephen's-green, and in all the streets adjacent, were instantly shut. The alarm, however, though

in some measure founded, had no cause equal to the extent of the report.

In consequence of the failure of two eminent houses in the cotton branch, and the slackness which has for some time prevailed in other manufacturing branches, near 5,000 hands dependent on their industry in these manufactures were thrown out of employment, and reduced to wretchedness and want.

Instigated by calls of hunger, numbers of these poor people came forth to seek relief from the public, and in their way some of them became riotous, and took by violence from some hucksters' and bakers' shops quantities of bacon, bread, &c.

The Lord Mayor, Aldermen Warren and Fleming, and the two Sheriffs immediately came forward, attended by some troops from the garrison, to preserve the peace, and, by persuasion and remonstrance on the impropriety of such conduct, dispersed them.

They then divided into groups, and begged relief from all passengers they met; but we do not hear of any violence committed by them.

The distress of these unfortunate people certainly calls aloud for the interference of public humanity.

Yesterday a subscription for the support of poor manufacturers out of employ was entered into by the gentlemen of the bar in the courts, and some hundreds (of pounds) collected.

Some other expedients of the same kind are mentioned to be in agitation among the great folk.

The Privy Council sat at the Castle to take into consideration the depressed state of public credit, and to resolve upon salutary measures for its revival.

The council was very full, and attended by all the privy councillors at present in town. Mr. Cope, Mr. Binns, Mr. Jaffray, and several other respectable merchants, were examined before the council relative to the present stagnation of public credit.

In consequence of their information, we understand that £700,000 will be appropriated to the laudable purpose of saving the honest and industrious man whose circumstances will admit of his giving good security from being ruined by temporary distrust."

The Irish Parliament and the Dublin Corporation of that day, although addicted to jobbery, yet when necessities of Irish trade demanded their assistance they came promptly forward. The old Corporation of this city, with all their faults, supported the trade and dignity of the city, and left a valuable property behind them that their successors have wasted and ruthlessly plundered.

IRISH COAL DISTRICTS.

Mr. William Hellier Baily, of the Irish Geological Survey Office, communicated to the public a translation of the remarks of Dr. H. B. Geinitz, of Dresden, on the coal-beds of Ireland which appears in the German work entitled, "Die Steinkohlen Deutschlands und Anderer Lndes Europa's, &c. The observations of Dr. Geinitz are very useful and valuable at this moment, and Mr. Baily has not done amiss in bringing them before the public. Dr. Geinitz writes as follows:—

"Although the carboniferous limestone extends over the greater part of Ireland, and we may assume that the coal-bearing strata of the carboniferous formation may also at one time have exhibited a considerable extension in that country, there is, however, very little of it remaining in consequence of the subsequent denudation observable there. In the south of Ireland the carboniferous limestone is accompanied by a series of black shales or grey sandstone, and arenaceous or sandy shales, which contain thin beds of anthracite coal in the upper strata. Professor J. Beete Jukes, who is at the head of the Geological Survey of Ireland (since deceased), distinguishes in this district the following groups of the carboniferous formation, from the lower to the upper:—1. Carboniferous limestone, 3,000 ft. thick. 2. Black shale, with occasional thin beds of sandstone, about 8,000 ft.

thick. In these occur the fossil shells—*Aviculopecten papyraceus*, *Posidonomya Becheri*, *Goniatites sphaericus*, *Orthoceras*, *Steinhaueri*, and other marine animals, indicative of a lower horizon. 3. Greenish-grey sandy shale, and black shale (flagstone series), characterised by vermicular impressions or markings, which have been referred to worm-tracks as well as to crustacean and molluscan tracks, 500 ft. thick. 4. Black shales and grey sandstone, with thin beds of coal, 1,800 ft. thick; making a total maximum thickness of coal measure strata above the carboniferous limestone of 3,100 ft. An extensive working is carried on in the Castlecomer coal field, which lies on the borders of Kilkenny and Queen's Counties. Accurate sections referring to this field, for which we are indebted to Professor Jukes, as illustrations of the sheets 127, 128, 136, 137, and 147 of the Geological Map of Ireland, exhibit in this district five beds of coal, of which, however, the upper only are observable, and that over a very limited area, in consequence of denudation (probably from sea action, upon what was once the coast line). The richest deposit of coal in the lower beds is found north-east of Castlecomer, where, at the Garrow Colliery, in the neighbourhood of Clonbrock, in the Queen's County, at the time of my visit, a coal-bearing seam 3 ft. 10 in. thick was working, which yielded excellent anthracite coal, the normal Kilkenny coal of Werner. The circumstances just described are perfectly analogous to those in the neighbouring Geneva Colliery, belonging to Mr. Benjamin B. Edge, J.P., of Clonbrock House. Opinions still vary as to whether this Garrow bed is the second or third from the bottom; at all events, it is the most important in that district. In the small Leinster coal-field, somewhat further to the north-east, in the direction of Castlecomer to Athy, a seam is also worked from 18 to 20 in. thick only. The numerous remains of plants collected in this coal district by Mr. Benjamin B. Edge, and his son Mr. John Edge, compared with those of other coal basins, show that the anthracite coal does not belong to the zone (horizon) of the calni, or our first zone, but rather to the commencement of the second or *Sigillaria* zone. Marine shells occur over the Garrow seam, among which the characteristic and widely distributed coal measure fossils, before mentioned, *Aviculopecten papyraceus*, and *Posidonomya Becheri*, are most frequent. Numerous well-preserved bivalve shells occur, *Antracostea*, *Myalina*, &c., locally called beans by the miners, together with some remarkable crustacea of the genus *Belinurus*, described by Mr. W. H. Baily, from the black shales of Bilbao colliery, situated about six miles S.W. of Carlow, the coal of which is believed to correspond with the second seam of the Castlecomer district. At this colliery, also, the well-known fossil plants *Alethopteris lonchitidis* and *Sagenaria elegans* were easily recognisable, two forms, which in the productive coal formation of England especially, have the widest distribution. In the north of Ireland, where coal-bearing beds occur, in the counties of Leitrim, Fermanagh, as well as at Dungannon, in Tyrone, and Ballycastle, in Antrim, they rest upon a thick sandstone formation, apparently representing the millstone grit which separates them from the carboniferous limestone group. Sir Richard Griffith, Bart., in his Geological Map of Ireland, divides the latter into an upper and lower limestone, between which the 'calp' is deposited, consisting of shales and sandstones, and often more than 1,000 ft. thick. It is remarkable that whilst in the whole of the south of Ireland the typical anthracite or Kilkenny coal predominates, in the North the prevailing deposits are bituminous or good gas coal. According to the investigations of Sir R. Griffith, the coal field of Dungannon, in Tyrone, is divided into two districts, which are distinguished as the Coal Island district, and the Annaghoe district. The first is six miles long, with a mean breadth of about two miles; the latter is only one mile long and half a mile broad. In this important coal-field there are eight beds of coal, of variable thickness, from 2 ft. 2 in. to one of 9 ft.—viz., the Annagher coal. Under these there are also two or three other seams known. These coals are for the most part of good quality. The occurrence of the productive coal formation at Ballycastle, on the northern coast of Ireland, in the county of Antrim, is very interesting, where it extends from Fair Head in a westerly and southerly direction to a distance of about four miles, with a mean breadth of one mile and a half. It contains at Murlough Bay six coal seams from 1 to 8 ft. thick, of which four yield good gas coal, while the two deepest are anthracite. The first four occur between two columnar isolated basaltic masses, while the two lower anthracite seams are almost in direct contact with the lower basaltic mass which is about 70 ft. thick. These coal-bearing beds appear to rest directly on the micascist. As an additional characteristic of the Irish coal-fields, there follows

a summary of the fossil plants which we had the opportunity of examining partly in the admirable collection of the Geological Survey in the (then) Museum of Irish Industry; and in Sir Richard Griffith's office, in Dublin, in the already-mentioned collection of Messrs. B. and J. Edge, at Clonbrock House, as well as among the waste heaps of the Castlecomer coal-field." Dr. Geinitz concludes by remarking—"I do not think that we should be justified, from a consideration of these plants, to refer the coal-bearing beds of Ireland to an older zone than to the lower, generally poor étage of the Westphalian coal formation, which represents very well the relations of their deposition. They indicate here, as there also, the commencement of the Sigillaria zone, whose later and richer beds were in Ireland destroyed, and of which only a very small area may still be preserved in some northern localities, as at Dungannon."

THE QUARTERLY REVIEW ON ARCHITECTS.

THE writer, or writers, in the *Quarterly Review* have been making serious onslaughts on modern architects and architecture. The epithets used are not very choice, and there is more hard hitting than hard facts. We would like to see a little more sound argument and a little less wild abuse. The writers in the *Quarterly Review* are not destined to effect any reform in the present practice of architecture, no matter how long they may harp on the new string anent "master workman," and the inspiration that was formerly his birthright. As we cannot roll back the clouds of a thousand years, neither can we forestall the sunshine of the future, an architectural revolution like that dreamed of by the writer in the *Quarterly Review* will, we fear, occupy one of those periods of time embraced in a geological formation.

A correspondent of the *Builder*, under the signature of "A Craftsman," criticises the language made use of by the writer in the *Quarterly*. He thus addresses our contemporary:—

A writer in the *Quarterly Review* has been creating a sensation of late by his architectural criticisms on our modern buildings and their designers. His views are in nowise novel, but, from the style of his treatment and the vehemence of his language, added to the medium through which his opinions have been given to the public, considerable interest has been awakened, and a no less considerable bias has been given to the thoughts of many on architectural subjects, the said many never having had previously any settled opinion of their own on the matter under discussion. At what particular period of the world's history the craftsman ceased to be the architect, or to what extent craftsmen were architects in days long past, there is little evidence in book form or MS. materials, as far as I am aware of, to show. By a system of deduction there can, of course, be an amount of possible evidence evolved in support of the belief that the master workman was both a craftsman and an architect, and, consequently, a designer and an artist. From the building of the Pyramids to the building of the Parthenon, or from the construction of the Roman Wall in Britain to the days of William of Wykeham, architecture at home and abroad achieved many triumphs and met with many reverses; but at the earlier as well as at the later date who can disprove that an organisation of building labour did not exist? Allowing for all the modifications and changes effected by modern society, the brick-maker, quarryman, stonecutter, or mason, the bricklayer, the carpenter, the woodcutter, splitter, or sawyer, and some other branches, existed in the building line thousands of years ago abroad, and probably upwards of 1,500 years ago in this island. Now, which were the master workmen, i.e., the architects, in the days of Alfred the Great or William of Wykeham? The prelate was the architect in the last instance, and in learning this and other facts about his life and career, we do not find any statement as to his being either originally a mason or a carpenter. History does not tell us who were the architects of all our early and splendid cathedrals, churches, and abbeys, and we are still in darkness how many of the said architects were masons or carpenters, or other craftsmen. There were undoubtedly master workmen, chief men, or foremen, in early building operations, as well as now; but who will inform us of the proportion of architects or craftsmen-architects each large building embraced? Which was it, the carpenter or the mason,

supplied the designs, and which the inspiration? Was every grand design manufactured on the modern principle of pin-making? Did one supply the idea, and another the drawing materials; a third the plan, a fourth the elevation, and a fifth the working drawings, and so on through theory and practice, each craftsman in his own respective branch pleasing his own sweet fancy and agreeing with his brethren? Is it possible that all the wonderful harmony of our ancient buildings was obtained, both in design, plan, and ornamentation, by entrusting them to the erection of some half-dozen architect-representing the different branches of trade?

To carry the notions of the writer in the *Quarterly Review* to its limits, it presupposes something like the above condition of things. Consistency is generally absent in arguments which are ventilated before they are well considered. A little thought and common sense must convince any one who possesses some experience and practical knowledge of architecture and building operations that there must have been always one chief directing mind,—an architect or "master workman," if you will,—from whom the general design emanated, and who always (during his time), more or less, controlled the erection of the building. In the method employed in construction or putting together of several portions of the work, or in ornamental details, it is most likely that the craftsmen of old were allowed great latitude, and in their own peculiar ways embodied a good deal of thought, and displayed a good deal of ingenuity and fancy, in the execution of their work. One thing is, however, practically certain, that they did not work at random, and that they were amenable to the designer or architect. The custom of long ages has established an organisation of labour in building operations, from the designer or architect down to the excavator, and it is the sheerest folly to suppose that we can so revolutionise society as to make it possible that our competent craftsmen, masons, carpenters, bricklayers, and so forth, can all become architects, sculptors, and painters,—artists and workmen at the same time,—and that, if it were possible, ordinary building operations would go on as usual. There is one thing that may be granted,—architects may be craftsmen, and craftsmen architects. Masons have before now become sculptors, and carpenters, bricklayers, and masons architects; but as soon as they become such they cease to be workmen, in the ordinary sense. None of them, to my knowledge,—and I have an experience of the professional practice of a few,—led to any new reform in architectural practice. It would not be amiss, in my opinion, however, for the future race of architects to become practically, as well as theoretically, acquainted with one or two of the leading branches in the building trade. For a youth intended for the architectural profession a novitiate of some period in the workshop or building would be a great advantage; and actual work performed by him in such capacity, first as a craftsman, and, secondly, as a foreman or clerk of works, would in no manner be derogatory to the subsequent dignity of his profession as architect. Although modern craftsmen-architects have not been many nor very distinguished, for lack of requisite education, there is one thing which their designs, plans, and working drawings have been distinguished for,—plainness. Knowing the wants of workmen, architects who were once craftsmen are, as a rule, easy to follow in all their details. This in itself is one great advantage, even though their elevation betray as yet no great inspiration or advance in the direction looked to by the *Quarterly Review* writer. Although I see both the possibility and the probability of a great change in architectural creation being effected by the training of the workman and the utilisation of his latent talent, I cannot, as a whilom workman myself, see any possibility at all of our building workmen becoming a race of angels.

There can be no comparison as far as the art of the sculptor and the painter and the architect is concerned. If it be contended that the latter should be a *bonâ-fide* craftsman as well as an artist-architect, he must needs be, to carry out the theory now ventilated, a "Jack of all trades" as well,—a general building operative, or at least a sort of "three branch hand." The sculptor certainly designs and executes, but his little microcosm is his own studio. He is given a block of marble: he sketches, he models, and by actual workmanship creates the embodiment he previously designed. The painter is also a workman as well as an artist, and is necessarily a draughtsman as well as the architect. There is a subdivision of labour in sculpture and painting as well as in architecture, and in the former art there are very few large pieces of statuary but have been partly executed by several hands. The construction of a palace or a cathedral from its design to its execution admits of no comparison whatever with the routine of the sculptor's or painter's art. Architecture embraces many pro-

fessions or callings; sculpture or painting only one. As sculptors and painters in the past had a great deal to do with the ornamentation of buildings, it would be quite as reasonable to expect that they should be architects and inspired master-workmen, possessed of a practical knowledge of architectural design and building execution, as to expect that our architects should be master-workmen in the sense of the *Quarterly Review* writer. All admit that there is great room for improvement in architectural design, but that improvement will not come through any hot-bed process applied to either the architectural or operative community. Time will produce a higher class of architects and a more skilled class of craftsmen; the former possessing a more practical and technical knowledge of the trades on which their profession depends, and the latter becoming more versed in the principles of design and construction, and consequently executing their work with a greater artistic taste. A well-planned building, be it a dwelling, church, or palace, is in itself a piece of workmanship to be proud of, and in the region of original designing and planning, and all its details in architectural and building construction, there is a quite sufficient and ample field for the architect. I would by all means elevate the craftsman and improve the architect, but I would be no party to preaching an incomprehensible logic that, however it may please for the season, is certain to become one of those Dead-Sea fruits, turning to ashes and disappointment upon the lips.

As to the question of men designing works and leaving others to execute, there is nothing at all strange in this, any more than in statesmen making laws, and judges and magistrates administering them. It is of course possible for an architect to design as an artist, and execute as a mason and an architect. What then? Think you, if Sir Christopher Wren worked the stones and performed the carvings, as well as designing St. Paul's, his great work would have presented any marked difference, supposing he accurately followed the drawings (whether these were all his own or not being an open question)?

If a real improvement in architectural designing is earnestly desired, let a system of model construction be insisted upon in all great public and ecclesiastical works, and that the construction of these models be under the eye of the architect. Let him insist, in all great works on which his fame and character are to rest, that a model be first made,—the expense, of course, to be paid by the clients. If models had been first made of some of our recent public buildings and some more in course of erection, much that is faulty in the design would have been remedied. It is nearly impossible for architects, no matter what their experience may have been, to see in their mind's eye or produce by any process of paper-drawing the appearance that certain portions of some buildings will present when completed. The exigencies of site will lead to the divergence from ordinary methods of construction, but it is only when the model is seen or the actual building put up that an alteration is seen to be necessary. Therefore I would strongly advise the construction of models, believing that it is one of the plainest, most practical, and feasible modes of developing an improvement in architectural design, and tending to the improvement and elevation of both architecture and handicraft.

KINGSTOWN AND ITS SEWERAGE.

A SPECIAL meeting of the Town Commissioners was held on Tuesday, "to do all necessary acts in relation to the following subjects of pressing necessity:—The obtaining through an Act of Parliament the necessary powers to carry out a complete system of drainage for the township; the erection of a town hall and court house; a public market; the purchase, if expedient, of the gas works and mains now in use in the township."

Mr. JOHN McEVoy (chairman) presided.

Besides the Commissioners (but one of whom was absent) the meeting was attended by several influential ratepayers, who took a lively interest in the matter. We give an abridged report of what occurred on the occasion:—

A resolution embodying the above notice was proposed by Mr. Stewart and seconded by Mr. Barrett in a few remarks, in which each advocated the necessity there existed for a complete system of main-drainage for the township. The latter maintained that the addition of 2d. in the pound would effect all necessary improvements under Mr. Hassard's plan, and 1d. under Mr. Doyle's. The rate at present was 7d. in the pound.

Mr. Crosthwaite maintained that the proposed sewerage scheme would be for the advantage of Blackrock and other districts, but not for Kingstown. He recollected when the present main-drainage was constructed, and no human ingenuity or engineering skill could construct anything superior to it. It serves two-thirds of the township. In any new scheme the railway company, being so interested in the matter, should lend assistance. He advocated the alternative plan of Mr. Palles. By it the sewage would be discharged at the East Pier. The ratepayers should get sufficient time to consider and approve of the best plan.

Mr. Kelly was not opposed to the main-drainage, the new town hall, or any other question benefitting the township, but he was very strongly opposed to the infliction of a tax which the ratepayers would not be able to bear. The committee to whom the question was referred had not actually reported, and now they are asked to sanction a plan of which they had no information—no estimate mentioned for anything, but they are asked to sanction a project which might take the entire valuation of the town to carry out. The proposed schemes will cost at least £51,000, but what guarantee had they that they would not cost double that sum? The present splendid main-drain was quite sufficient, and had lasted many years. He had got into it at the railway station, and walked through it as far as Dunleary. It was simply to carry a job that this meeting was convened. He had heard Mr. Stewart speak with great pleasure, but he would have heard him with greater pleasure had he told them the lords of the soil would contribute to the scheme. Let a meeting of Commissioners and ratepayers be called, and come to an arrangement, and he for one will abide by it, and instead of being an opponent, he would be a warm advocate. Mr. Hassard's item of £15,000 would not purchase the powder for blasting or sharpen the tools. He would move the following amendment:—"That the consideration of the subjects dealt with in the resolution now moved be postponed until the Select Committee appointed in the question will have reported to the Board."

The amendment was seconded by Mr. Crosthwaite.

Mr. Sullivan said he would be acting a wrong part to those who sent him there if he did not agree with and support the amendment. He saw no necessity of going with a hop, step, and a leap to Parliament; they did so before, and they left it in increased taxation without any corresponding advantages.

Alderman O'Rourke asked the chairman who were the promoters of the Bill? They were not the Commissioners but "outsiders," and surely the Commissioners had sufficient intelligence to conduct their own affairs. He moved that the words "promoted by the board" be inserted in the resolution, which, if done, he would vote for it. He advised candour amongst the board, and deprecated any secrecy or want of straightforwardness.

After a few words from Mr. Sexton in opposition to the original resolution and Mr. Hassard's plan,

Alderman O'Rourke called on the chairman for a full explanation of what had hitherto been done, and what measures are in contemplation in connection with the scheme.

Mr. McEvoy said he had charge of the proceedings since May last. At that time he got a loan of the plans drawn up by Mr. Palles some years ago, as he was going over to London on private business. On arriving in London he called on Mr. Hassard, who had previous experience of Kingstown, and requested his opinion on the question of the sewerage. Mr. Hassard informed him that he had been consulted by the Blackrock Commissioners, and after carefully considering the entire subject had advised them to join with the Kingstown Commissioners in constructing a system of sewerage which would have an outlet at Sandycove. This plan was almost identical with that proposed by Mr. Palles; and it struck him (the chairman) as being most remarkable that two such eminent engineers should hit on the same plan without either being aware of the other's. A committee was appointed by the Board, which unanimously approved or Mr. Hassard's plan. A very general wish was expressed last August by the Board to consult the Blackrock Commissioners, the Board of Works, and the Port and Docks Board, and a new committee was appointed, and consulted respectively with these bodies, each each of which suggested some modification of Mr. Hassard's scheme. He (the chairman) had done his part in endeavouring to establish a system of sewerage; and he maintained that until Kingstown had a thorough system of main drainage it would never enjoy that fulness of prosperity as a watering-place for which it was intended by nature. It was, therefore, after careful

consideration and consultation with the most eminent authorities that he believed that an intercepting main sewer along the coast was imperatively necessary. If Blackrock or any other township wished hereafter to avail themselves of this system of sewerage, let Kingstown insist that they should pay for it. The commissioners, by the resolution before them, were bound to no one plan. If, when they went before Parliament, the plan submitted was not proved to be the best and cheapest it would be rejected, and he (the chairman) would feel rejoiced that such should be the case, as he was only anxious that a system of sewerage should be constructed which would prove of lasting benefit to the township. The commissioners were not in a position to promote the bill at present.

After considerable discussion, during which several amendments were put and lost, the original resolution was carried by a majority of four.

ARCHITECTURAL ASSOCIATION OF IRELAND.

THURSDAY, NOVEMBER 7TH.

The President (J. J. O'Callaghan, F.R.I.A.I.) occupied the chair.

The following members attended:—James H. Owen, P.R.I.A.I.; R. C. Millar, William Mitchell, W. Doolin, T. Briggs, G. Beater, H. Keogh, J. F. Todd, D. J. Freeman, E. S. O'Callaghan, T. H. Longfield, J. L. Robinson, W. Butler, J. Davis, R. Phillips.

Visitors—W. Law, J. J. Lyons, J. Allen, — Martin, R. H. Roe, &c.

The following were elected as members:—J. M'Curdy, J. Holmes, W. K. Parry, J. F. Todd, W. Fennell, H. Brett, jun., J. H. Brett, J. P. Davis, J. Banks, G. Mossop, T. Hardy, G. C. Henderson, and R. D. O'Brien.

The following were proposed:—J. Allen, J. Longfield, J. M'D. Bermingham, and T. W. Barry.

Mr. William Butler read a lengthened paper on Christ Church Cathedral, and exhibited his measured drawings of same, together with some photographs of the Cathedral.

Mr. James H. Owen proposed a vote of thanks to Mr. Butler for his valuable and interesting paper. Mr. Phillips, in seconding the motion, expressed a hope that Mr. Butler's paper would be printed in the "Transactions."

The President, after making some complimentary remarks, put the proposition to the meeting, and it was passed with acclamation.

Mr. Butler, in replying, said that he was under a great obligation to Messrs. Millard and Robinson, Sackville-street, for their kindness in specially printing and supplying him gratuitously with the very elegant collection of photographs now before the meeting.

The President having vacated the chair, and Mr. J. H. Owen called thereto, the usual votes of thanks were passed, and the meeting separated.

THURSDAY, NOVEMBER 14TH.

The President (J. J. O'Callaghan) in the chair.

The minutes of last meeting were read and confirmed.

The following were elected as members:—J. Allen, J. Longfield, T. W. Barry, J. M'D. Bermingham.

Mr. J. H. Owen read his paper on Concrete Building (which will be found on page 304).

Mr. Carson, in proposing a vote of thanks to Mr. Owen said that, in his opinion, concrete would never supersede brick, unless owing to the increasing scarcity of labour, a difficulty might arise in obtaining skilled labour.

Mr. Drew, in seconding the vote of thanks, said that concrete forced itself on us as a material for building, and should be met as such. He said selenitic mortar was preferable to cement concrete, and cheaper. He approved of concrete for a lower class of buildings, such as barns, workmen's houses, &c., but not for the better class of architecture. Although it was claimed for concrete that skilled labour was wholly unnecessary, yet a skilled workman was necessary in order to prepare the moulds and fix the different portions of the work, and that the preparation of

the moulds would make it more expensive than masonry.

Mr. Briggs bore witness to the great benefit that accrues from using concrete in foundations.

Mr. Henderson said that he was at present carrying out a building in concrete. He had one skilled carpenter and six labourers, who execute on an average one course of 20 in. each day. The method adopted was by side boards, secured in their places by iron bolts and nuts, the boards being moved upwards, course by course, as the work proceeds. Floors are carried on partitions 6 in. thick, stone corbels checked for tassels are inserted so as to distribute the weight evenly; window and door frames have the joggles left on them, and are set in their place as the work proceeds, and are therefore perfectly unmovable. A stream runs convenient to the site, from which coarse and fine shingle is obtained of the relative proportions 5 to 2, which are mixed with 1-7th part of cement. The walls are also packed with stones. He considered that there would be a difficulty in running mouldings, as it would not be easy to fix guides to the mouldings, as nails cannot be driven into the walls. He considered that hollow walls would be better formed by square drums 3 in. apart than by the method described by Mr. Owen. He calculated the cost to be as 75 to 100 between concrete and masonry.

The President, in putting the vote of thanks, said that he had carefully calculated the odds on both sides, and had decided in favour of a good rubble wall, and to avoid concrete as much as possible. As to studing, he deprecated it completely, being nothing more than a makeshift. He had seen an 18 in. wall in the dampest climate resist the moisture. In foundations the use of concrete is invaluable. He approved very much of the method of having corbel courses to support floors, as no wood should be built in the walls. That after all that had been said in favour of concrete, he thought that the walls bore a small proportion to the whole cost of the building; strike a balance and you will find that brick and mortar will hold its own. How could a cathedral be built in concrete? How would a flying buttress and pinnacles be executed? Concrete destroys colour, the very life of a building. He thought, however, that it might be moulded in blocks, and coloured, and be used as a substitute for stone.

Mr. Owen, in replying, said he would only recommend concrete for the very humblest class of buildings, and as a means of solving the problem of housing the poorer classes. It is not at all impossible to use concrete in an artistic manner, or to combine it with other materials. It is, in fact, the only fireproof material. The carriage of cement is the same in all parts of Ireland, and the other materials are to be found everywhere in Ireland. On the whole, he thought for a certain class of work there was no material like concrete.

We are requested to state that the meeting of the Class of Construction announced for Thursday, 28th inst., will take place on Wednesday, 27th, at eight o'clock, when the subject of Bricklaying will be also considered.

Arrangements have been made for the members to visit the Concrete Cottage, near National Schools, Phoenix Park, on tomorrow, the 16th inst.

SANITARY MATTERS IN THE CITY AND PROVINCES.

SINCE our last issue the Dublin Sanitary Association has been actively engaged in hunting up nuisances and bringing them under the attention of the Corporation, whose officials are too lazy to take steps for speedily removing them. We perceive that the Association has to make weekly complaints of the neglect of the Corporation officials in delaying to reply to their communications in respect to matters which it is the proper business of the Corporate staff to attend to.

At a meeting of the Public Health Com-

mittee of the Corporation, Dr. Cameron presented his report for the month of October, 1872. It appeared that 44 samples of food and drink were examined for the public, for private institutions, and for the purposes of public prosecutions. Of these samples 22 were adulterated. There were condemned during the month nearly 32,000 pounds of diseased or otherwise unsound meat. The chief diseases which rendered the meat unsound were contagious, pleuro-pneumonia in the ox, foot-and-mouth disease in the ox and sheep, and scarlatina in the pig. One butcher was fined £3, and another was sent to prison for three months for offering for sale diseased meat. Five persons were convicted, and fined £37 for selling adulterated food.

In the provinces a number of cases crop up, showing an absolute and criminal neglect both on the part of the town commissioners as well as the inhabitants.

The sanitary inspector of Mountrath district, in pursuance of an order of a previous board, reported that he had inspected "Dirty-lane" Mountrath, and found it to be in a very filthy condition, and he did not think the nuisance could be properly remedied unless a "bog sewer" was made there. Mr. Broomfield said he was in Mountrath the other day, and at the request of the relieving officer and Mr. Fitzpatrick, of Deerpark, he went to the lane in question. It was a very filthy place, and he would not wonder if the poor creatures who live there were in fever. There are certain yards from which all the filth comes, and some of the poor people have four inches of dirty water lying at their thresholds. He was not surprised at their having to keep up a fever hospital at Mountrath when such nuisances were permitted to exist. The chairman remarked that this state of things was shocking. Mr. Broomfield said the lane was enough to infect the whole town of Mountrath with fever. He would recommend that a sewer should be made through the centre of the town, and that branch sewers ought to be made into it from the back lanes and yards. The matter required immediate attention. Mr. Meredith thought the county should bear the expense. The chairman said they had found from the report made by the relieving officer that the complaints they had heard were well founded. The board quite agreed in the truth of the complaint, that nothing could be worse. The relieving officer's duty was to give notice to the responsible parties to abate the nuisance, and, if that had no effect, he should summon them before the magistrates, and proceed in the matter according to the due rules of law. If the officer did his duty, the magistrates would do theirs.

The sanitary inspector of Portarlinton made the following report:—"Gentlemen,—In compliance with your order given on last board day (19th October), I made a careful inspection of the several towns and villages in my district, and could not discover any nuisance that was in any way injurious to public health, save one in South Portarlinton, which I endeavoured to have abated, but owing to the constant wet there was, I was unable to do so. However, the cause of prevention was the means of rendering innocuous the nuisance complained of."

At Ballymoney the Town Commissioners had a wrangle, like our own local council, over the matter of keeping the streets clean, and the former higgled about the payment of a few shillings voted for that necessary object. If one "very industrious painstaking man" obtains the munificent sum of 15s. per week for keeping the streets of Ballymoney clean, it is a marvellous example of scavenging. Ballymoney has the honour to be represented by a contractor of scavenging and a body of town commissioners. How many streets, lanes, courts, and alleys does this poor and "very industrious and painstaking man" sweep? Does he sweep all himself, or what is the number of his staff whom he has to pay out of the magnificent 15s. per week? Poor fellow, he has henceforth to enter into an open competition with his brethren of the broom and wheelbarrow, as advertisements

are to be issued for tenders for 1873, for the best man. Any advance, gentlemen, after 15s. per week? Going at 15s. per week. Once more, 15s. The job is as cheap as dirt—going at 15s. per week. GONE! Mr. Pollard, the commissioners are very happy in handing over the contract to your care, at the old standard price of 15s. per week, as you are a "very industrious and painstaking man."

TO CORRESPONDENTS.

CONCRETE BUILDING.—We have already published particulars. Read Mr. Owen's paper on the subject in present issue.

CIVIL SERVICE.—Rather premature yet. It will be attended to in good time.

AMATEUR GEOLOGY.—The Hill of Howth will afford a field wide enough for a beginner, who, with industry and intelligence as well as with a hammer and "prog" on a summer's day, might make good progress.

STONE-MASON.—By all means. There is no college of sculptors; and if you think you can knock a good statue out of a rough Dalkey granite boulder, lose no time in trying the experiment. Make your model first, which you can pinch out or punch into shape to please your fancy, which, we fear, you will be disappointed in not being able to do on the harder material.

THE MUNICIPAL ELECTIONS.—All the "boys" are good now, wonderfully civil, and as affable and as amiable as their better halves—that is, any of them who possess such sweet comforts T.Cs., P.L.Gs., J.Ps., and boobies are all in the field. We think there are five of the latter class who skeddaddled on a former occasion, but who again valiantly come forward true to their old motto—

He that fights, and runs away,
Lives to fight another day.

Or, rather, should we say—

They say they only then levanted.

Because, like now, they were not wanted.

THE STATE OF IRELAND.—Its sanitary, or rather unsanitary, condition is a disgrace to its local rulers. The streets are in ruts, and, in rainy weather, swimming in gutter; the lanes and alleys are noisome and filthy; the inhabitants are taxed beyond endurance to pay exorbitant salaries to lazy, luxurious, and incapable officials; and the majority of the Council are an incarnate lot of jabberers and jobbers, with little respect for God, and none for man. The citizens collectively are duped and fleeced, and the few honest men who oppose Civic rascality are doomed to vituperation and slander, seldom open, but covertly, as becomes knaves and cowards. Perhaps the tide is about to turn, and the Augean stable swept clean—perhaps.

WATERFORD HARBOUR.—Some new works are in contemplation, we hear, and others are proceeding in respect to the navigation of the Suir.

THE BELFAST STRIKE.—The disagreement in the building trade in Belfast is a mistake, we think, on the part of the workmen. The hour system is the best for both parties. The old system of day-work is, after all, nothing more than the hour system—so much wages for so many hours' work. Some years back the London building operatives struck against the "hour system," and expended several thousand pounds unwisely in opposition to it. Now the hour system is becoming general everywhere, and the workmen prefer it after a trial.

J. B. (Waterford)—O'B. (Kingstown)—Ormond (Kilkenny),—A. B.—E. W.—Senex—Sanitary Association (Dublin)—An Architect (London)—T. J. (Belfast) have been received.

"A VISIT TO EPPS'S COCOA MANUFACTORY."—Through the kindness of Messrs. Epps, I recently had an opportunity of seeing the many complicated and varied processes the Cocoa bean passes through ere it is sold for public use, and, being both interested and highly pleased with what I saw during my visit to the manufactory, I thought a brief account of the Cocoa, and the way it is manufactured by Messrs. Epps, to fit it for a wholesome and nutritious beverage, might be of interest to the readers of *Land and Water*.—See article in *Land and Water*, October 14.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & CO., Homoeopathic Chemists, London." Also, makers of Epps's Cocoaine, a thin refreshing beverage for evening use.

MANUFACTURE OF COCOA, CACAINE, AND CHOCOLATE.—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—See article in Part 19 of *Cassell's Household Guide*.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

Post Office Orders and Cheques should be made payable to Mr. PETER ROE, 42, Mabbot-street, Dublin.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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The Irish Builder.

VOL. XIV.—No. 311.

The Possibilities of Concrete.



Our last issue appeared a very useful and practical paper on Concrete Building,

by the President of the Irish Institute of Architects. The methods given therein for the use or application of concrete may be followed or varied, or other methods substituted, without at all invalidating the usefulness of the material. Concrete is no modern invention or innovation in the art of building construction; it has been used centuries ago in various forms, but its adaptability to modern wants has been completely lost sight of and ignored, either through want of knowledge of its properties, and consequently through an ignorance of its value. Before anything of a similar nature should be condemned or

damned with faint praise, its critics should first acquaint themselves, by a careful trial or by a series of practical and scientific experiments, as to its real value. Now, we are firm believers in the practical usefulness and durability of concrete material, and we boldly assert that its application for building purposes is almost boundless, and that it is a grievous mistake to think that it is only fitted to be used for the most humble and commonplace uses.

At the meeting of the Architectural Association of Ireland, the President, Mr. J. J. O'Callaghan, exclaimed—"How could a cathedral be built in concrete? How would a flying buttress and pinnacle be executed? Concrete destroys colour, the very life of a building. He thought, however, that it might be moulded in blocks, and coloured, and be used as a substitute for stone." To the first two interrogatories the last sentence of the extract affords a partial answer. It is not desirable at present that cathedrals should be built with concrete, for the building of a cathedral presupposes sufficient funds. Cathedrals and palaces are not built for the poor, though often the poor subscribe, and participate to a small extent afterwards in the existence of either the former or the latter. Were it desirable that cathedrals or rich men's mansions should be built with concrete, there are no impossibilities to be encountered, as what is possible in an ordinary dwelling is also possible in a cathedral. A flying buttress could be executed safely with "flying colours" by practical builders who know how to deal with and manipulate concrete material; and a buttress would not be the most difficult portion of a cathedral to accomplish. Many ways will suggest

themselves to the thoughtful architect or builder for constructing a flying buttress in concrete. Mr. O'Callaghan's own suggestion, for instance, might be safely adopted, and the arch of the buttress moulded in sections, and put together afterwards on a centreing specially prepared for the purpose. Where the buttress would not be a very massive one, it could be swung by machinery to its position the same as a massive rib of iron or a girder, provision beforehand having been made by allowing proper openings for its bed at either end. While resting on its centreing as a work in sections or as a whole buttress intact, its either extremity could be properly secured and grouted in its resting place.

A flying buttress composed of concrete may be looked upon as a solid stone in one solid curve, or a girder of iron. As buttresses in general have their voussoirs composed of many wedge-shaped sections, so might the arch of the buttress in concrete be divided into a series of blocks. There are some folk who may smile at our rash observations—rash to their comprehension,—but the difficulties they dream of will vanish at the first earnest and practical attempt they make to solve the difficulty for themselves. As to the question whether "concrete destroys colour, the very life of a building," that is another question which we are not called upon to discuss now. We would, for artistic reasons and for other reasons, prefer, of course, a cathedral or palace of cut stone; but, in preferring one thing, we cannot, nor will not, condemn another as impossible because it may not be pleasing, or because it runs counter to the preconceived ideas of a number of individuals. Stone dressings can be used in combination with concrete as well as brick, and concrete, if properly made and manipulated, is infinitely more durable than brick. Perhaps it will startle some people to be told that a dome can be safely constructed in concrete—a piece of building more ambitious than a flying buttress; as well also a square, octagon, or any other form of tower, surmounted, too, with a concrete steeple! In the matter of a steeple built with concrete, it would be advisable that, for some feet below its finial, concrete should be dispensed with, and other material substituted.

The immediate object of our remarks is not to dilate at length upon what concrete can be made to subserve if necessary, but rather to commend the use of concrete for ordinary dwellings and out-houses, leaving it to time to effect a much-desired revolution in the interest of the public.

The first great triumph for concrete building and builders to achieve will be the construction of workmen's dwellings in all parts of the kingdom, and thereby sweeping from off the face of the land those barbarous mud hovels which disgrace our country, its civilisation, and its landed proprietary. Cheap, durable, warm, and healthy dwellings can be constructed to any number with concrete, and the materials can be had in every county in Ireland. Bad concrete will, of course, make a bad dwelling, and injure the good name and usefulness of concrete, and also injure the cause of the poor.

Concrete need not be looked upon by any architects or builders as a bug-bear: it is not destined to do them harm. The brick-maker will still live and the quarryman will prosper, and the architect and builder will find clients notwithstanding. The present is safe, and we are not called upon to weep

over the downfall of bricks—an event that is probably far off at present. The future belongs not to us, but it behoves us who have to do with the present to see that all of God's creatures are well housed, and that the name of building is not disgraced by the existence of a class of habitations unfit for vermin to live in. If the use of concrete can wipe out this national disgrace—and we know it can—let it be used, and the satisfaction it will afford will be its best commendation.

THE CITY AUDIT.

It has come at last, and it would have been well for the credit of the city and the protection of its rate-paying citizens, that a Government auditor had begun his labours in this city ten years ago, or even five years ago. The citizens cannot forget the determined and dishonest opposition that was given to having the Corporation accounts audited last year, and everybody knows that the opposition given was not influenced by the desire of saving expense, but to save the exposure of illegal payments, which, if the audit had taken place, some of the Corporation officials would have had to refund out of their own pockets.

Better late than never; for it is indeed time that a check should be put to the chronic and wholesale extravagance of a Corporation who have for years dealt with public moneys, as if they were elected for no other purpose but to tax and waste the legitimate funds contributed alone for the improvement of the city. The last Borough Balance-Sheet audited by the Corporation officers is sufficient to sink into the lowest infamy those amongst the members to whom the scandal can be traced. We have already given a digest of that monstrous volume, in which "Law and Parliamentary Expenses" stand out in glaring figures, and in which "Miscellaneous" and "Sundries" form such a large and startling proportion to other items. Every honest trader looks with suspicion (and very properly so) on a balance-sheet in which "sundries" play a conspicuous part. In the matter of a few pounds, where the outlay comprised a number of petty disbursements, the incident would not be worth noticing, but it is quite another matter where the outlay of several hundreds are clubbed together, affording not the least information of how or for what purposes the moneys were expended.

The so-called Liberals in the Town Council of Dublin have earned the name of liberal in one direction, for they have undoubtedly been liberal enough in the expenditure of the public moneys, ready to vote it to subserve party interests, and often the personal interests of systematic jobbers. We trust that Mr. Finlay will give a rigid overhauling to all the city accounts, which, no doubt, are by this time pretty well doctored to meet his scrutiny. Let proper vouchers be insisted upon, and where any suspicion exists let the parties be summoned and made to swear upon oath that a *bona fide* transaction has taken place. Let worth and work be shown for the expenditure, for we consider where money has been paid away for the performance of a public contract outrageously out of proportion with the value of the work executed, that it is the duty of the auditor to disallow the charges, and make whatever has been paid beyond the fair price be refunded by one or other of the parties to the contract. It matters not whether it may be

the Treasurer, Chairman of Committee, Lord Mayor, Town Clerk, Borough Engineer, or Contractor—whoever is in fault should be made feel the penalty. It is immaterial to us, or to other honest citizens, who falls under suspicion, or who escapes it. We want no fear or favour to be visited upon any one in particular. One member to us is the same as another, unless we know he is a culprit, and if found guilty he deserves to suffer. Without being mealy-mouthed, we must indeed confess that we know a few members of our Town Council who never should sit another year, or even another day, as members of the Corporation, if strict justice was visited on them. They have outraged all forms and canons of good breeding and public rectitude, and they have for years endeavoured to convert the Town Council into an open sesame of abuse, and to make it a continual hotbed of political depravity, by their utterances and their actions. The Corporation would be well rid of such men, and far better for their own credit sake they quietly retired than live on in office till some future date when their retirement will probably be a forced one.

We congratulate our citizens on getting an audit at last through the officer of the Local Government Board; and, though this audit will be only a small instalment of the Corporate Reform we desire to see effected, it will result in good. A radical reform of Corporate abuses will not, however, take place until the great majority of the present representatives are relegated to private life, and their places filled by honest, practical, and well-informed men, who have the interest of the city at heart, and not their own personal aggrandisement.

CORRESPONDENCE.

NEW ROMAN CATHOLIC CHURCH, KINGSCOURT, CO. CAVAN.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I request permission to make a few observations in reply to a correspondent, signing himself "Jean De Vey," whose notice of this building appears in your issue of the 15th inst.

Referring to "the defects in the workmanship," and his "wonder" that I would let them "pass," I have only to remark that I have not taken the building off the contractors' hands, nor have I accepted it, in any way, as complete according to contract. The "here and there traces of haste or carelessness" are easily accounted for, in the fact that we were much hurried at the last moment to have the church ready for the opening ceremonial, and, in consequence, some things had to be put temporarily out of hands, whilst others, as the paring of the springer stones of the arches, &c., had to be deferred.

I discredit entirely the statement of your correspondent, that the gable of the south transept "batters." The arguments he uses in support of this idea, fortunately for the sake of truth and justice, carry with them their own refutation. First, because it is impossible to "sight" this gable with that of the south porch, so as to arrive at a correct conclusion as to the plumbing, owing to the planes of the gables being on different lines, and the projections of the buttresses interfering; second, because the "vertical joints of the slates" have nothing whatever to do in determining the question, nor would they be affected by the gable, inasmuch as the parapet rising above the slating line with its projecting coping converging to the apex intervenes, and cuts off the possibility of viewing them relatively; and, thirdly, be-

cause the batter alluded to exists only in the imagination of your correspondent. The observation with respect to the projection of the eave gutters, I dismiss as unworthy of my notice.

In conclusion, I have to apologise for occupying so much of your valuable space, but it is necessary to correct mis-statements such as these, the result of want of knowledge of the subject treated upon, and dictated by motives which are gravely suspicious.

WILLIAM HAGUE, Architect.

44 Westland-row, 27th Nov., 1872.

[We have thus freely allowed Mr. Hague space for the ventilation of his observations in reply to "Jean de Vey." We would ask what means the following in the above communication—"I have not taken the building off the contractors' hands, nor have I accepted it, in any way, as complete according to contract"? We had no reason originally to doubt the correctness of our correspondent when writing about this building; and perhaps it yet remains to be shown that "discredit" should be attached to him for saying that the south transept "batters." If he has exhibited a "want of knowledge" in this matter, he must try and do better in future.—ED. I. B.]

AMALGAMATED TRADES UNIONS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—On looking over the pages of the *Builder* for October, I was astonished at the almost complete system of amalgamation or friendly recognition existing amongst the different trades in England. The balance-sheet of the committee of carpenters who conducted the recent strike for nine hours and an increase of pay points out the sources from which they drew the necessary funds for the support of their undertaking. Almost every trade subscribed something, and it is at least interesting to be thus informed from whence the money came. I am aware that this practice is usual amongst all trades unions: that of assisting each other by means of levies and subscriptions. I will not, therefore, trouble your readers further than noticing the matter; but I think it right to say a word or two upon a system existing in England amongst the building trades, and which struck me as one that gives metropolitan employers a chance of competing successfully with those in the provinces. I mean the equalisation of time and pay. There is very little difference between the time worked in the provinces and that worked in London, and the difference in wages is scarcely worth noticing, and might be made up by the cost of living in the former. Here in Ireland it is different. The Dublin societies combine to protect themselves, and leave their brethren of the provinces out in the cold to struggle individually, or form local clubs to stand upon their own feeble resources. This gives provincial builders in Ireland a great advantage over Dublin builders, who find it hard to compete with them in consequence. A Dublin builder estimating for a country job must calculate for sending hands from the city at far higher wages than provincial workmen generally receive, and he is thus placed at a disadvantage. To be sure it will be said that country hands can be had by Dublin employers. Not always, for in many instances men living in country towns or villages are employed already, and as they are kept constant they prefer to remain as they are, even if a higher wage be offered; very often, too, the men who can be had in the country are very indifferent workmen, and would not suit an employer who was in the habit of doing first-class work. Let me ask why Dublin trades unions do not make some effort to equalise the time and pay in Ireland like London men? Men can be had in the provinces here for 24s. per week on an average, while those in Dublin receive 32s.,

and if sent to work in the country claim lodging-money and expenses as well. As a rule, provincial builders here never pay extra if they send their men from home. Is this fair? Let some trades-unionist answer why is this system permitted, and why should not some effort be made to protect city employers? A BUILDER.

THE PROPOSED PUBLIC PARK AT CLONTARF.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—As the question is mooted by the Corporation, of converting part of the slob land at Clontarf into a park for the use of the people, would it not be as well if those who are to be benefited by the transaction would be allowed to say a word in the matter. Now, in the first place, does the necessity exist for a second public park? Undoubtedly it does. In the second place, is the proposed site a favourable one?—is it likely to please the people? The one great drawback of the beautiful Phoenix Park attaches itself to the proposed park, viz., too great a distance from the city. A working man taking his family to the Phoenix Park on Sunday has a long and tiresome walk before arriving there,—that is if his abode is in a central part of the city, as three-fourths of our working men's dwellings are. The fact is this, a good city park is required, where our young artisans in particular can enjoy themselves in manly games, such as cricket and football, without having a long walk before them,—a park where our gentry and middle classes could have a summer evening's promenade or drive. Now, in London the Baroness Coutts and the late Mr. Peabody did wonders in providing means of healthy recreation for the working and middle classes. In Paris, Napoleon III. not only encouraged such projects, but actually undertook himself the conversion of the filthiest districts into the most pleasing boulevards. Will nobody in Dublin undertake to do something in this way for the people? Could not the lanes and alleys, reeking with disease, of those districts known as the Liberties be converted into a pleasing and healthy resort? The house property in those places is all but valueless; and no matter what body, private or representative, would undertake such a project, it would command the concurrence and approval of all. It would be a display of philanthropy of the highest order—not, indeed, the philanthropy of fireside theorists or board-room orators,—but that feeling in its broadest, truest, and most practical sense. J. J. L.

ARCHITECTURAL ASSOCIATION OF IRELAND.

On Thursday evening last an ordinary general meeting of this association was held at 212 Great Brunswick-street. Mr. W. M. Mitchell, F.R.I.A.I., in the chair.

Amongst those present we noticed—T. Drew, R.H.A.; J. Connolly, A.R.I.A.I.; H. Wilmot, W. Doolin, W. Doolin, jun., R. D. O'Brien, J. P. Davis, D. J. Freeman, W. P. Ryan, E. S. O'Callaghan, H. Keogh, T. Hardy, J. Wilson, A. W. Robinson, J. L. Robinson, T. H. Longfield, *Hon. Sec.*; Peter Roe.

The minutes of previous ordinary general meeting and of a special business meeting were read by Mr. T. H. Longfield, one of the *Hon. Secs.*, and confirmed.

The following gentlemen were proposed as members—J. H. Browne, A. E. Murray, and E. L. Clarke.

The reading of a paper by Mr. Drew on "Architectural Excursions and their Uses," occupied a considerable portion of the evening. It was listened to with marked attention, and at its conclusion a well-deserved vote of thanks was passed to the lecturer. We hope to print the paper in our next issue.

The Classes of Construction and Design will meet on the 5th, 12th, and 19th inst.

ARCHITECTURE IN IRELAND.*

GENTLEMEN,—I rise once more with much pleasure to perform the duty of opening the session of our Institute. My first work must be to express a hearty welcome to you and our non-professional friends who have done us the honour of attending, and expressing thereby their sympathy with our pursuits, and their good wishes for us and our Institute. We are, and always must be, a small body numerically; and from the engrossing nature of our pursuits, the wide extent of the field over which they are exercised, and the amount of personal attention which they require, it is not possible that our meetings here can be largely attended; but our works are seen of all men, and afford one of the most striking evidences of the state and condition of the community in which we labour. A correspondent of one of the London journals, recently visiting Dublin, mentions in his communication that in former times the architecture of Dublin used to be justly commended as exhibited in its public buildings, such as the Bank, Custom House, Post Office, and Four Courts, &c., but that now alongside these are springing up on every side new banks, insurance offices, shops, and other establishments, which are remarkable both for the talent displayed in their design and also as exhibiting a state of things strongly contrasting with the stagnation of trade and decay of prosperity which have been such prominent features in most pictures which have been drawn of the state of Ireland; and what is so truthfully stated of the metropolis may be stated with equal truth, varying only in degree, of nearly every provincial city and town, and the country itself is gradually becoming dotted over with buildings of a new and important character,—in those for religious uses especially is the change most strikingly shown. Perhaps nowhere else in Europe were the ecclesiastical structures erected for the last few preceding generations of so utterly mean and degraded a character, and this was one point on which all sections of religious belief among us were at one; whatever other differences of opinion, whatever distinction of form of worship, there might be among them, in this one point there was perfect unanimity of both creed and practice. It is much to be feared, however, that improvement in the direction of architecture is receiving a severe check. Without entering into any discussion as to the merits of the several questions which have disturbed the labour-market, it is sufficient for us here to note that the cost of building has increased by a very large percentage, and that this must to a great extent postpone the extension of improvement until matters find their level. I do not see any cause for any feeling of alarm or uneasiness at this state of things; there is nothing really new in it; the same sort of thing has occurred over and over again. The statute book is full of laws for regulating the prices of labour and commodities, which, of course, became a dead letter, in so far as they were opposed to the real progress of the age. In all old chronicles are to be found innumerable notices of such marks of progress, and in almost every case they refer back to some golden age of bygone cheapness, and predict the end of all things as soon to arrive; but the world has wagged on, and there seems no great reason for desponding now. Matters are sure to right themselves, things will find their level, but meanwhile there are grounds for both hopes and fears as to the future prospects and condition of the artizan, based on the uses to which he may apply the increased leisure and pecuniary resources which the march of events has bestowed on him. "What will he do with it?" Will the extra hours and increased wages be spent in the beer-shop and gin-palace? or in any other form of mere animal enjoyment? or will they exhibit their effects in increased comfort and culture of the man himself,—more care in educating his children? It is hard to say—perhaps some-

what of both. The better class of men in each trade will probably be the better of it; the middling and inferior class will probably become worse workmen day by day, until they sink down to the workhouse or the grave, for the after-effect on them must be, that the less the necessity for working, the more the distaste for working will grow. The man who "plays" one or two days in each week will work very reluctantly and unwillingly on the remaining four or five; and when the competition with imported or machine-manufactured goods shall have attained the fuller development which is certain to be brought about when manual labour is at its maximum of high price and irregular and uncertain supply, the weaker man must go to the wall. This, I confess, is the only fear for the future suggested to my mind by the present unsettled state of the labour-market.

The same commentary on our new buildings to which I have already alluded suggested to me another train of thought, to which I think it will not be inappropriate to request your attention for a few moments. In comparing the recent architectural decorations of our streets with those older examples, which have challenged for the city the admiration of most travellers and writers, we perceive a difference between them of a very striking character, which, however, while strongly exemplified here, is not by any means confined to Dublin, but exhibits itself everywhere, and in a greater or less degree, according as the mind of the architect is more or less imbued with the ideas that this generation has reproduced. I say reproduced, for the principle to which I allude is one which always has ruled supreme whenever and wherever there has been true architecture, irrespective of age or country, and without which there may be a good deal of building, but no architecture. This golden rule, this *symbolum stantis vel cadentis architecturae*, is "FITNESS,"—adaptation of the design of the building to the uses to which it is to be put. Whether consciously or by mere force of habit and imitation, this is the rule which prevails in modern buildings. There is a very wide range of selection made as to the character. The ornamentation and details may reproduce ideas Classic or Mediæval, and in the latter may range over the whole lapse of time from the earliest revivals of art in the dark ages down to the mongrel style of the Renaissance. All countries—England, Ireland, Scotland, France, Germany, Italy—are put in requisition to supply ideas of form and character, but the one central, distinctive idea which distinguishes the building of this day is the one of fitness, and the rule deduced from the idea, which eliminates from all good architecture such parts which are not essentially and constructively necessary to the building, in order that it may fulfil the purpose for which it is designed. Let me for a moment call your attention to two of the most beautiful of our older buildings with reference to this one point. Perhaps no city in Europe can show a more beautiful perspective view of Classical architecture than what one sees, either by daylight or moonlight, from Grafton-street, by standing at the Provost's gate and looking toward the Bank of Ireland. It is a glorious bit, and as pure in its detail as it is picturesque in outline and grouping; and yet there is not one particle of what meets the eye that might not be removed—cleared away utterly—without interfering for a moment with the business of the bank. What you are admiring is not the building itself, but a screen which hides it. In the same way the façade of the central portion of the Four Courts wants only deeper shadow from somewhat bolder projection of the portico to be perfect, only in looking at it you must take care to stand so as only to see the front of it: a look at either flank will destroy the illusion. It is very beautiful, but, like stage scenery, it is meant to be seen only from the front,—and for the same reason, because it is put there to represent what is not there really, and to hide what is. The whole façade is a mere screen wall—a picture of a building executed

in stone. Now I think it will be admitted that it is not the true aim and object of architecture to erect buildings and then construct elaborate and costly contrivances for hiding or disguising them, and that a design which treats the exterior in a manner independent of, and bearing little or no relation to, the interior, is radically bad, however beautiful it may be *per se*. No one would think a surgeon entitled to credit who should perform an operation merely to show his own dexterity in handling the knife.

I have sometimes thought, when looking at such buildings as those which I have been considering, that, to most people's minds, the idea of a really noble building must be that of one built regardless of expense, and apparently of no earthly use; but the fact of the matter is, that in these things we are only just beginning to think for ourselves,—to shake off the bonds of old associations, and get rid of an empiricism that had become engendered in all our thoughts, habits, and practices. In architecture, as in every other direction of modern thought, our culture has been built on the revival of Classical modes. In art, as expressed in painting and sculpture, the surviving antique models were themselves perfect, and nature was always present, forcing the artist's mind and hand out of mere slavish imitation and reproduction. In science, Bacon first taught us to throw off the bonds of authority, to test facts and phenomena by analysis, and appeal from the philosophers to Nature herself as our sure guide; and how slow we were to accept the teaching! I can remember myself having in very early days had the maxim impressed on my mind that "Nature abhors a vacuum," two hundred years after the death of Torricelli. Law, the most conservative of sciences, has in these latter days been cleared of much of the dead branches of previous growth—is becoming every day less purely technical and arbitrary, and is likely before long to start on a new basis of codified principles as opposed to mere practice. A similar reform in architecture is in progress, but hardly yet acknowledged by the profession, and scarcely at all understood by the non-professional world. It is high time that we should proclaim and act upon the principles hinted at by the late A. W. Pugin as applicable to one particular style only, and then urged more as an argument for the revival and cultivation of that particular sort of architecture with which his mind was thoroughly saturated, but equally true of all architecture in all ages and all countries, and that principle, I repeat, is FITNESS. As an example of most successful artistic results derived simply from the application of this principle, I would call your attention to works which all of us must be more or less familiar with, executed by that branch of our profession to which the railways of the world have given such a great development in the last generation. The civil engineer has frequently a very difficult artistic problem to carry out,—to throw a hard straight line across a river or valley—an apparent outrage to all the ideas of the scenery and the locality, and yet how generally it happens that the work of the engineer possesses artistic merit of a very high degree—generally in the inverse ratio of the expenditure on ornament—arising from the scale of the work and its fitness to its purpose.

I have occupied you very long, and I fear tediously, on the subject of design. I now wish to say a few words on some of the difficulties attending the execution of designs. I am the more anxious to do so on this occasion, when, in addition to my professional brethren, we are honoured by the presence of so many who show thereby that they take an interest in our art. We, the architects of Dublin, occupy a most unfortunate position. When we proceed to have our designs carried out (presuming that both architect and employer have got beyond the *compo stage*), this difficulty at once arises, and has to be got over as best it can—we have neither bricks nor bricklayers, we have neither good stone nor good stonemasons. This is perhaps a startling statement, and

* Address delivered by Mr. James H. Owen, M.A., President, at opening meeting of session, Royal Institute of the Architects of Ireland.

one which at first sight does not command ready assent; but a little steady and unprejudiced reflection will, I think, show you that it is only too true. As regards the bricks, there can be no second opinion. If we want good facing bricks, we import them; but the art of laying them is lost. If you will look out a really good specimen of brickwork in the city, you will find that it is a hundred years old. The fact is, our bricklayers have become demoralised by the beastly and pernicious system of wiggling down the fronts of our brick buildings, and naturally so. It is his and his employer's interest to expend as few bricks as possible in facing a given surface, and to make his mortar joints as wide as possible; and when the whole face is raddled over, and the joints are filled in with brick-coloured mortar, and nice neat white lines are drawn upon them, who is to be the wiser? And to this vile and utterly abominable practice we architects have been consenting parties! I do hope that, having had your attention called to it, you will consign wiggling to the same limbo as stucco and all other such pretentious and contemptible devices, and use your best endeavours to get external brickwork so done as to bear inspection without any after-patching and cobbling. As regards stone and stone-cutting, my thoughts were principally directed to our granite. Of its utter failure in durability, our buildings give painful proof. It is a most worthless stone; and, in giving this opinion, I include the Wicklow stone which is so generally used by us. There is granite of fine quality at Dalkey and Kingstown, but it is used only locally. I only know one building in this city where Dalkey granite is used, and there the difference between it and the Wicklow stone which is used in the same building is most striking. The stone commonly used is not merely bad in itself, but, from its peculiar friability, it has led inevitably to slop-work—arrises are anything but sharp, mouldings are merely approximated to, and the whole surface is left mealy and stunned. Compare the material and workmanship of the granite wall at the Thames Embankment with the enclosure wall of Trinity College, and it will be evident to any one that there is reason for saying that, as far as granite is concerned, we have neither stone nor stonecutters. At our opening meeting last year Mr. Harte, County Surveyor for Donegal, exhibited to us some specimens of red granite from Donegal. I understand that the quarries there of red and grey granite are about to be worked on an extensive scale by a limited liability company; and as the cost of water carriage from Donegal would not exceed, and probably would not equal, the cost of land carriage from Wicklow, it is worth our consideration whether it would not pay, not to mention other advantages, to use it in preference to the granite we are now using.

Since the close of our last session, there has been a movement among the junior members and students of the profession, which has resulted in the formation of an association for the promotion of architectural study. The result of such an association can only be the production of good to its members, who will find it impossible to write or speak on subjects about which they have no ideas, and the organisation of ideas about architecture is the first step towards becoming architects. Such an association,—if it be earnestly, heartily, and perseveringly carried on,—cannot but prove to be of the greatest possible benefit to its members; it will stimulate to progress, afford a gauge for measuring a man's deficiencies by himself in a manner not to wound his self-conceit, and furnish material assistance in attaining to progress of a sound and healthy character. For my own part and, I think I may add, for yours, I wish the Architectural Association every success.

I have, I am afraid, drifted most unreasonably into technicalities which must be dry and uninteresting to an audience not wholly professional. I must ask your forgiveness. It is very hard to talk abstract architecture;

it is very apt to degenerate into mere sounding words without any definite meaning. The ideas of our art cannot exist apart from the material expression of them. A good building, if properly read, is the best lesson on architecture. I will trespass no longer on your time than to repeat to our visitors our thanks for the honour they have done us in attending this evening, and to express to my brethren of the profession the hope that the time which has elapsed since our last meeting has been a fallow time with them, to be productive of rich results of practice and experience during the coming session.

NOTES ON THE ECCLESIASTICAL ARCHITECTURE OF IRELAND.

BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,
F.S.A., SCOT.

CASHEL—continued.

THAT Cashel was a place of considerable importance at an early period, is evident from the number of ancient ecclesiastical remains still existing, comprising the ruins on the Rock, the Dominican Abbey in Moorlane, and the Cistercian house known as Hore Abbey, at the foot of the Rock. The Franciscan Friary no longer exists, its site being partly occupied by the Roman Catholic church; until lately there were some remains of the walls, and one of the Castles still stands in the Main street. The Rock of Cashel is a huge mass of limestone rising to a considerable height from the surrounding land, and perfectly isolated; it is rugged and irregular, and the wonder is that so many important buildings should have been erected on it without bringing its top surface to a more regular level. On this elevation stand the remains of the Cathedral, Cormac's Chapel, nearly in a perfect state; the Round Tower, in fine preservation, and retaining its stone roof; the Vicar's Hall, a number of mediæval domestic buildings, the gate-tower, and portions of the ancient walls.

Many curious legends exist respecting this spot. One of these accounts for this singular isolated rock as follows:—When our patron saint had his celebrated conflict with the Powers of Darkness on Croagh Patrick, the arch-enemy being worsted, was put to flight, pursued by his conqueror. Passing over the range of mountains near Templemore, he took in his rage a huge bite out of one of them; but being hard pressed by his pursuer, he dropped it on the plain of Cashel. The mountain is well known as the Devil's Bit Mountain, while a singular deep gap out of its crest confirms the popular mind in the truth of the legend.

The rock in pre-Christian times was known as Sidhe Druim, i.e., the Ridge of the Fairies, as I have before remarked; it was also known as Drum-feeva, being surrounded by extensive woods. Keating has a legend connected with its first appropriation to Christian purposes in the reign of Corc, King of Munster. Two officers of the kings of Ely and Muskerry, named respectively Cularan and Durdru, having charge of the great herds of swine belonging to these chieftains, were having them fed in the great woods around the rock, "and when," he writes, "they had continued on the hill about a quarter of a year, there appeared to them a figure as brilliant as the sun, whose voice was more melodious than any music they had ever heard, and it was consecrating the hill and prophesying the coming of St. Patrick. The swineherds having returned to their homes, related what they had seen to their masters, and the story soon reached Corc, who repaired without delay to Shee-drum, and built a palace there, which is called Lis-na-Lachree, or the Fort of Heroes; and being king of Munster, his royal tribute was received on this rock, now called Carrick Patrick; wherefore the rock was named Cashel, i.e., Cios-ail, or the Rock of Tribute."

Corc, the son of Lughaidh, of the race of Heber Fionn, was a contemporary of Niall of the Nine Hostages, who ascended the throne

of Ireland A.D. 377. We have no evidence of his ever having been a Christian; on the contrary, we find, on the authority of the *Tripartite*, that, when St. Patrick visited Cashel in the reign of Aenghus-mac-Nadh-fraech, idol worship was in full exercise there, as it is stated that in the morning of the day of Patrick's visit, when the king arose, he found all the idols at Cashel fallen prostrate. Whatever credence may be attached to the legends connected with our saint's visit to this place, there can be no doubt that it was of importance in pagan times, and, from its defensive position, was probably one of the regal forts of the toparchs of Munster; in fact it is so stated in the *Book of Rights*, where the kings of Munster are called kings of Cashel.

"Caiseal of the kings of great prosperity;
Its prince has five prerogatives."

One of these prerogatives was "to keep the obligation of Lent at Caiseal."—(*Ibid.*, p. 5.)

THE ROUND TOWER.

This is decidedly the oldest erection on the Rock; it stands at the north-east angle of the northern transept, with which it is connected. Its circumference at base is 56 ft., and it is stated to be 90 ft. in height; it retains its original conical stone roof, which springs from a projecting string-course. The masonry of the tower exhibits some curious features: it rises from a plinth of 6 in. projection; for 5 ft. in height it is built of freestone in irregularly-squared blocks; there is next a long patch of limestone about 4 ft. high, roughly built, the stones cracked and damaged, and looking like a repair; we have next about 6 ft. high of freestone masonry in blocks, roughly dressed, but without spawls; from this upwards the work is all of even character, being of freestone in irregular courses of from 7 in. to 12 in. high, rough-squared, but closely laid, and an admirable piece of work. The original doorway faces south-west, and is of small dimensions; it is 10 ft. from the ground level, the ope is at present built up, the sill-stone is gone, and the jambs much damaged. There is a more modern doorway broken into the north-eastern angle of transept. It has a quadrangular window-ope about 20 ft. from the ground, which faces south; a similar ope at 36 ft., facing east; and one at about 50 ft., facing to south-west. As usual, these opes are of small dimensions, and have sloping jambs. In the attic storey, immediately under the eave-course, are four window-opes of larger dimensions, having angular heads externally and square heads internally; these opes are well proportioned, and nearly face the cardinal points; two of the angular heads are cut out of solid stones, and the other two built of two or more blocks. Internally there are offsets taken off the thickness of the wall.

CORMAC'S CHAPEL.

By reference to the ground plan it will be seen that this building stands in close proximity to the Cathedral, which latter has been built against it, with an entrance from the south transept, the intention being to convert the chapel into a chapter-house. It will be remarked that the orientation of both buildings differs materially. It consists of a nave and chancel, with two quadrangular towers at the east end of nave; the latter has a deeply-projecting north porch, and the chancel has a deep recess or sub-chancel at the east end. Both nave and chancel are roofed with stone, as also the north tower and porch.

South Elevation.—This elevation of the nave is divided into four storeys. The doorway is in the position shewn on plan, towards the west end. The jamb consists of an external pillar, a semi-hexagonal pier, and an inside square pillar and reveal; the shafts of the pillars are gone—the caps and one base remain. The semi-hexagonal piers are carved with incised surface-ornament; two of the capitals shew human heads, the others are mutilated. The arched head is solid,

and on it is carved a nondescript animal in bold relief; it has two orders carved into chevrons, and a bold label consisting of a square and circular billets in a hollow. The arch mouldings spring from an abacus of the same arrangement. This ope is much damaged, and is at present built up. The left-hand side of door shews one semicircular-headed panel; the right, two. They are recessed 6 in., the arches of which are incised with chevrons, and spring from impostes consisting of a deep square and hollow enriched by circular billets, and which forms a string-course.

The second storey is marked by a bold string-course consisting of a deep square and hollow, over which was formerly an arcade of arched panels, some of them enclosing window-opes; one of these panels only remains. The arch is plain, springing from angle-shafts having carved caps, the abacus of which ran along the piers throughout. Two rude rectangular opes have been broken through where formerly panels were, and the work of this portion is much mutilated and altered.

The third storey has an arcade of panels, as before, having plain arches springing from narrow piers, furnished with angle-piers having carved caps, all much mutilated, the abacus, as before, forming impostes.

The fourth storey has six columns, and two angle-columns next end piers, supporting the ornamental eave-course; they have also carved caps, and rest upon a bold string-course consisting of a square with the ball ornament in a hollow. This is continued round the southern tower. Between the pillars are a series of corbels carved into human heads.

The southern tower is about 68 ft. in height, has seven stages marked by string-courses; the entasis is very graceful; the fourth stage has an arcade of semicircular-headed panels, two on the front and one on each side; these have angle-shafts with carved caps. At various stages are rectangular slits for the admission of light. The tower finishes at present with a plain parapet of rubble limestone work, evidently of an age much later than the original building. There can be no doubt that it was finished at first with a stone roof in the same manner as the northern tower. The east side being fair with the east gable of nave, the original ornamental barge of the stone roof has been continued down on the tower wall—an admirable contrivance to preserve the symmetry of the roof-gable. The moulded barge finishes each side with a grotesque head.

The south side of chancel has three storeys; the first is plain, and shews an over-thickness, above which is an arcade of six semicircular-headed panels, the arched heads of which finish with a torus moulding, and sprung from small shafts having carved capitals; the latter remain, the pillars have disappeared. This arcade is returned on the east gable as far as the altar recess. The upper storey also recedes, and is plain to the eaves, which is formed by a deep square and hollow enriched with the ball ornament, and supported at intervals of about 15 in. by corbels of grotesque animal heads. This eave-course runs across the east gable, forming a string-course, over which appears two circular opes for lighting the croft over chancel; they are about 6 in. diameter, and finish with a moulded rim enriched with the ball ornament. Above these in apex of gable is a narrow semicircular-headed ope.

North Elevation.—This side of the building is completely blocked up by the chancel of the Cathedral. The north tower is of more massive dimensions than the south, with which it corresponds in the height of its stages and the level of its string-courses. It finishes with a high-pitched pyramidal roof of stone, built of ashlar blocks, and in good preservation. It is not so high to the eaves as the stage as the southern tower. The most remarkable feature of the north side of this curious church is its porch, which projects 4 ft. 2 in. from external face of wall, and is 7 ft. 10 in. deep, including thickness

of wall; its external width from pier to pier being 12 ft. 5 in. (see plan of jamb). This was a most elaborate piece of work, each side consisting of a series of single and double pillars and square piers, having carved bases and capitals, with corresponding orders of arches, all richly carved in a variety of Romanesque ornament. The original doorway of this porch was but 3 ft. 1 in. wide, and 6 ft. 11 in. high to springing of arches; these dimensions were further reduced by the insertion of a limestone door-case with chamfered jambs. The original tympanum remains, and exhibits a carving of a very small Centaur shooting an arrow at a very large animal, apparently a lion. The external arch member is enriched with a deeply-cut chevron; the second, a bold torus and hollow with the ball ornament; the third, a deeply-cut chevron on the face, the soffit carved in lozenge panels enriched with pateras; the back of this order is also enriched with carving. The outside arch member is crowned by a bold label consisting of a square and head, having a grotesque head for a key-stone. The front of porch has a lofty acutely-pitched gable, and is roofed with stone. The barge-course is bold and effective, and enriched with a chevron; the tympanum is divided into panels by a horizontal string and three upright stiles, which are also enriched with chevrons; in each panel is a boldly-carved circular patera; the barge mouldings meet at the apex in a grotesque head.

The space between the porch and north tower being 7 ft. 2 in. long and 4 ft. 2 in. deep, is arched over and roofed with stone against the nave wall, in the manner of a lean-to. The barge moulding of the porch is continued horizontally, and forms the eave-course, being supported by large corbel heads. A built-up tomb at present occupies this recess, but it is evidently a modern affair. There can, however, be no doubt that this recess, so carefully formed and roofed, is coeval with the original structure, and was designed for some special and important purpose. When first I saw it, the idea struck me that it might have been constructed to contain the curious stone sarcophagus or font, whichever it may be, now lying in the Cathedral. On consulting Dr. Petrie's well-known work, I found that this eminent authority had formed the same opinion, and, moreover, that he appears to consider it to have been the tomb of the founder of the church, Cormac Mac Carthy, whom he most learnedly labours to prove was both king and bishop. His reference to the appropriation of this recess contains some curious particulars, and is as follows:—

“I should not conclude this description of Cormac's Chapel without noticing a curious quadrangular recess, which is placed in the north wall, between the doorway and the tower. This recess is at present occupied by a tomb, and was obviously intended originally for such a purpose: and, according to the popular tradition, it was the place of the tomb of the founder, Cormac Mac Carthy. The present tomb, however, is obviously not the original one, which, as I was informed by the late Mr. Austen Cooper, had been removed into a small chapel in the north transept of the Cathedral, more than a century since, after the abandonment of that noble edifice to a ruin in Archbishop Price's time, and where, divested of its covering stone, it still remains, and is now popularly called ‘the Font.’ It is said that the covering stone of this tomb was ornamented with a cross, and exhibited an inscription in Irish, containing the name of Cormac, king and bishop of Munster, and that this sculpture and inscription were ground off its surface by a tradesman of the town, who appropriated the stone as a monument for himself and family: and I may remark, that the probability of these traditions being true is greatly increased by the character of the interlaced ornaments which are sculptured on the front of the tomb, and which are obviously of the twelfth century, and similar in style to those on the base of the stone cross now remaining in the cemetery adjacent to the chapel, and

with which it is obviously contemporaneous. I should further add, that the length and breadth of this tomb is such as to fit it exactly to the recess from which it is said to have been removed. But strong as these circumstances appear, there is yet a fact to be stated, which may throw some doubt on the truth of the traditions, or at least so far as they relate to the tomb having been that of the founder of the church, namely, that on the opening of the tomb there was discovered a crozier of exceedingly beautiful workmanship, and which, from its form and style of ornament, there is every reason to believe must be of contemporaneous age with the Chapel. It is certain, at all events, that its age cannot be many years later; and I may remark, that a perfectly similar head of a crozier, which is preserved among the antiquities in the Museum of Cluny, is ascribed by the learned author of *Les Arts au Moyen Age* to the commencement of the twelfth century. The Cashel crozier, after having been in the possession of the Cooper family, of Cashel, for a considerable period, passed into my possession at the sale of the museum of the late Dr. Tuke, it having been purchased by him at the sale of the library of the celebrated Joseph Cooper Walker, author of the *Memoirs of the Irish Bards* and other works, and to whom it had been given by Mr. Austen Cooper. The question then naturally arises, Was Cormac Mac Carthy, the founder of this Chapel, a bishop as well as a king, or, are we to reject the tradition, and adopt the alternate conclusion that the monument must have been the tomb of some contemporaneous bishop?

“As this is a question which has been already made a subject of interesting controversy, it is greatly to be regretted that the only evidence that could perhaps have settled it—namely, the inscription upon the tomb—should be irrecoverably lost; for, under existing circumstances, much may be said on either side without leading to any satisfactory conclusion. It will be recollected that in one of the passages already cited,—that from the *Annals of Innisfallen*, at the year 1127,—it is stated, that on his expulsion from the throne of Cashel in 1127, Cormac was obliged to take refuge in Lismore, where he was forced to receive a *bachall* or crozier: but though there is nothing improbable in the circumstances that a deposed prince of his high character for piety should have received the episcopal rank to reconcile him to his fallen condition, the statement in the annals is not sufficient to establish that such was the fact, as the word *bachall* is used in the Irish authorities not only to denote the crozier of a bishop, abbot, or abess, but also the penitential staff of a pilgrim. But there is another historical evidence of much higher authority, because a contemporaneous one, which would go far indeed to establish the fact that Cormac had received an episcopal crozier, and enjoyed the dignity of a bishop, when he was restored to his throne. This evidence is found in the last of the following entries in a manuscript copy of the Gospels written in Ireland, and now preserved amongst the Harleian MSS. in the British Museum,—n, 1802.”—(Petrie; *Round Towers*, pp. 303, 304.)

The learned doctor quotes several MS. authorities to establish the fact of Cormac Mac Carthy having united in his own person the regal and ecclesiastical dignities, and I think his facts and arguments on this point cannot be refuted. It is, however, doubtful if the stone cist at Cashel was his tomb.

To begin with, we must dismiss the idea of its ever having fitted in the north recess already alluded to, as I had at first surmised. On measuring both, I found that the stone cist was 7 ft. 7 in. long, and therefore 5 in. longer than the recess. This remarkable object is hollowed out of one block of stone. Its external dimensions are—length, 7 ft. 7 in.; breadth at head, 3 ft. 5 in.; at foot, 3 ft. 2½ in.; height, 3 ft. 2 in. at head; the plinth is 13 in. high at one end and but 9 in. at the other. The plinth and angles finish with a bead moulding. The large panel on

the font is enriched with a sculpture of two intertwining serpents and strap-work, of a type found in our earliest illuminated manuscripts and stone carvings. The thickness of the material round the hollowed-out part varies from 5 in. to 6 in. The end of this cist is much damaged, and a portion of the ornamental panel lost. In one of the bottom angles are two circular holes, evidently for draining off water.

I am very doubtful as to the appropriation of this object. In form and dimensions it is very unlike any mediæval stone coffin I have ever seen, which usually taper very considerably, and are hollowed out barely sufficient to contain the body, having a well-defined circular receptacle for the head. In the present case we have no such arrangement; the difference of width at top and bottom is not apparent to the eye, and the dimensions of the cavity—which is 6 ft. 8 in. long by 2 ft. 6 in. wide, and 2 ft. 3 in. deep—are greatly in excess of any known example of a christian stone coffin.

That it was intended to be placed above ground, and in a recess, or against a wall, is quite evident from the mouldings and panel on the front; but we find no place in Cormac's Chapel where it would fit. Were baptism by immersion prevalent in the primitive Irish Church, I should say that the tradition which names it "the Font" may be nearest the truth, else why the two circular holes in the bottom?

West Elevation.—The western gable is completely blocked up by the east wall of the southern transept. From the portions visible we can ascertain that the barge was finished in the same manner as that of the eastern end, and that the string-courses on the south side were continued across it. In the second storey is a semicircular-headed window, with external jamb-shafts, having carved caps; immediately under it is a doorway of a late date. Certainly there was no original west entrance. It is, however, quite evident that this end of the church was finished in a manner suitable to the other elevations, and that the entire building was a complete and perfect design, without any mixture of later styles; even the western doorway, at whatever time it was broken through, was done in a manner not discordant to the general effect.

THE COAL MINES OF IRELAND.

In a work entitled the "Mineral Statistics of Great Britain and Ireland," compiled by Mr. Robert Hunt, F.R.S., the Keeper of Mining Records, there is some information afforded as to the number and extent of our coal-fields, which will, no doubt, be acceptable. The entire number of the coal mines in Ireland, we are told, is seventy-six; but since these statistics were collected, there are other mines projected or opened. The Ulster district contains nine, situated in the counties of Cavan, Tyrone, and Antrim. Of these, four are in working order—two at Ballycastle. In the Province of Connaught, in the Lough Allen district, all the mines are reported to be working, extending through the counties of Leitrim, Roscommon, and Sligo. The Leinster coal district runs through the counties of Carlow, Kilkenny, and Queen's County, and the mines number thirty-four. There are, however, of this large number only five reported as working, four partially working, eleven actually working or in preparation for work, and twenty-three untouched. The Munster mines are twenty-six in number, running through the counties of Cork, Limerick, and Tipperary. The mines in the last county extend through the Slieveardagh district, five of which are reported as in working order; these, with other mines in this district, are worked by the Mining Company of Ireland. In the Duhallow district, in the county of Cork, there are four, of which one is not at present worked. The Limerick district, of its seven mines not one is working. Returning to the Connaught mines, we find two of them—

Geevagh and Greaghnageerah—are reported to be worked by colliers on their own account. In Leinster, at Mdubeagh, the owners are sinking a shaft; and at Kilgony the mine is in process of proving. Among the chief proprietors of some of the unworked Munster mines are Lord Devon, Lord Monteaigle, Lord Clare, and Archdeacon Gould. It may be mentioned that these statistics are based on the voluntary returns of colliery proprietors and owners of other mines.

On the 1st of next January two new acts will come into operation in relation both to collieries and metalliferous mines, rendering it compulsory on all proprietors to furnish the Keeper of the Mining Records with accurate returns of their produce. This will be a practical step in the right direction, and the country will be thus afforded an annual return shewing the progress that takes place. There is nothing of more importance in view to our manufacturing advancement than the wise development of our coal and other mineral deposits. If our railway companies act with liberality in the matter of affording facilities for quick conveyance, Ireland will, in a few short years, be no longer at the mercy of foreign coal proprietors. It is possible yet that our ships may carry coals to Newcastle, and that Irish coals may be welcome on the waters of the Tyne and the Thames.

CIVIC LYRICS.—No. XXVI.

THE GAS-CONADERS.

In City Hall, when luck runs low,
Sir Buncombe Bounce gets up to blow
The gas that finds its overflow,
While he is talking rapidly.
Around him group his friends *en masse*,
With bloodshot eyes and cheeks of brass,
To swallow down wholesale his gas,
Escaping strong and rapidly.

A telegram from T. C. Smudge
Arrives to say he will not budge
About the Stonybatter sludge,
Contracted for quite recently.
'Twill save the granite setts, he thinks,
And square the reck'ning where the links
Are missing, through some clever jinks
Winked at most complacently.

Bravo, Smudge! the loving glass
Will wet your lips, but not in Bass;
You saved the bacon and the gas
Of members yawning drearily.
The Council now may well adjourn
To scoop the butter from the churn,
Since home-made gas is made to burn,
By oiling, bright and merrily.

No moral's wanted to explain—
The road is clear from Driy-lane
To Mud Island-on-the-Main,
And bills are floating gloriously.
Five monster dunghills, Dr. Biggs
Reports, are kept by Civic digs.
Who took to breeding fowls and pigs,
And fouler things—notoriously.

CIVIS.

"UNKNOWN DUBLIN."

BY THE "OLDEST INHABITANT."

Edited by Mark Philip O'Rlanagan, T.C.D.

DAPPER-DANDY STREET.

An industrious *litterateur* in our midst some years ago began an history of our streets, and ended by transforming the compilation into a history of our city. Since then, as well as three centuries earlier, the streets have been growing older, increasing in number, and not a few of them changing their names, like some of the degenerate branches of the Hy-Niall, concerning a member of which an incensed native bard once wrote—

"Mean skulker from thy noble race,
Infelix Felix, weep for thy disgrace."

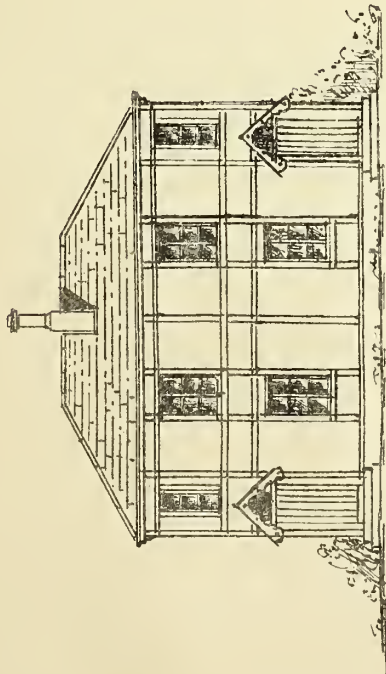
Feeling in a congenial mood a few days ago, we brushed the dust from our office coat and hat, kicked our carpet slippers into a further corner of our sanctorum, and set out on a ramble through Unknown Dublin. Passing down the Mall, we soon crossed over Gandon-bridge and along West Foreland-street. Curving round the Broadway, we dived with

a sense of relief into Dapper-Dandy street. To give our readers some idea of the geographical position of this celebrated quarter of Unknown Dublin, we may say that in our young days it was entered from Hogg-green and terminated in Gallows-green, and it probably occupies the same standing-place now as did it fifty years ago, although the world has since been moving round for the edification of the flats that are upon its surface. Dapper-Dandy street is a fast street, and many fast people walk its flags both day and night. So we were told by the "Oldest Inhabitant"—a garrulous but genial old soul, who accosted us while we were musing on the mutability of human affairs, illustrated by a metamorphosed entablature over the porch of the once-celebrated "Judy's Tavern." We found our friend the "Oldest Inhabitant" such a reliable authority, and so full of wit and anecdote, that we encouraged him to toddle along with us up and down the length of Dapper-Dandy street. His memory was as prodigious as his thirst for knowledge and a drop was genuine; but we forgave him the latter fault, in consideration for his years and usefulness.

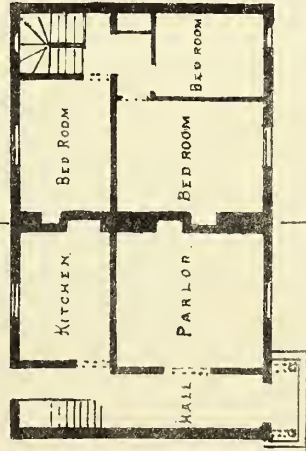
"Well," quoth the "Oldest Inhabitant," "as I remarked before, sir, 'Judy's Tavern,' in my young days, was a famous resort; but there was another not less noted tavern in the street opposite, which you passed down into Chequer-lane. In this latter place Sir Boyle Roche always managed to be absent and present, by which he earned the distinction of being gifted with the power of ubiquity; and in the same place, if not the same house, Hollinshed wrote the first chapter of his *Chronicles of Ireland*, after arriving from a visit to Cullenswood on a Black Monday. That old red brick front opposite, in my grandfather's time, was No. 27 Dapper-Dandy street. The bust of Virgil was over the central doorway, though people could not rid themselves of the suspicion that it was 'The Dean.' That was the celebrated Paddy Byrne's book-shop, and it was burnt down one night, but the public got up a subscription and reimbursed the bookseller for his great losses. Byrne, sir, was a great publisher, and used to issue every other week dozens of pamphlets on Irish rights and Irish wrongs. He was suspected by the Castle, but being in the habit of wearing the four-leaved shamrock, he escaped the ill luck that overtook others. Toby Tone, a dashing, spirited, but wild young enthusiast, was a great frequenter of Byrne's shop, and a great many of the clever and fiery pamphlets issued by that old bookseller were placed to the credit of Master Toby. When Watty Cox was a stripling in Volunteer uniform, he used often to strut into Byrne's shop to ask the old chap how he (Cox) looked rigged in the garb of the Goldsmiths' Corps, whose drill-ground was near where the old round tower stood in the last century in Lower Sheepstreet. Old Byrne was very fond of young Watty, and thought him clever.

"That lane yonder, sir, is Paradise-court; indeed, sir, they might with a great deal of justice, as you say, have inscribed over the archway—'No Thoroughfare.' It was always a blind alley. I remember many years ago a sbrewd and industrious man, who wore spectacles, that used to keep a bookstall at the corner of that court, but from little to little he got on in the world, and was afterwards able to open a big book-shop, and after a few years more he grew into a publisher. I hear he is known in the list of professions as one of our Irish bibliopoles. His name is—well, sir, scarcely remember it, but I think O'Melly 'That's Timons' old shop, sir. There were formerly two steps from the pathway before you reached the door. Old Timons was on of the old school of booksellers. Many time I took a squint through the window at the old fellow at the desk within. His book were of the standard order—old editions in now bindings. He hated your sensation literature, for he was of a rather pious turn of mind. Poor Timons' trade died out with the advent of the Wide Street Commission and the wooden pavements. He seldom

COYTAGES AT RATHMINES



ELEVATION

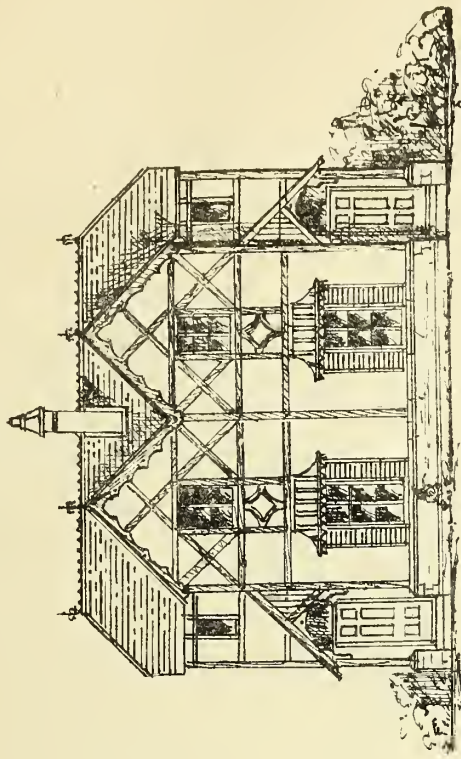


GROUND PLAN

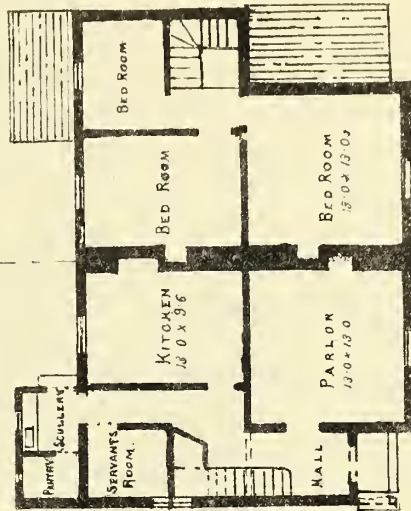
UPPER FLOOR PLAN

J. HOLMES' IMPROVED METHOD OF BUILDING WITH CONCRETE.

DESIGN FOR SEMI-DETACHED VILLAS



ELEVATION

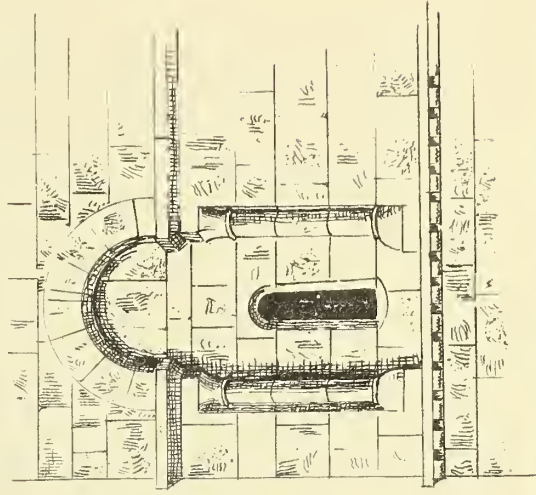
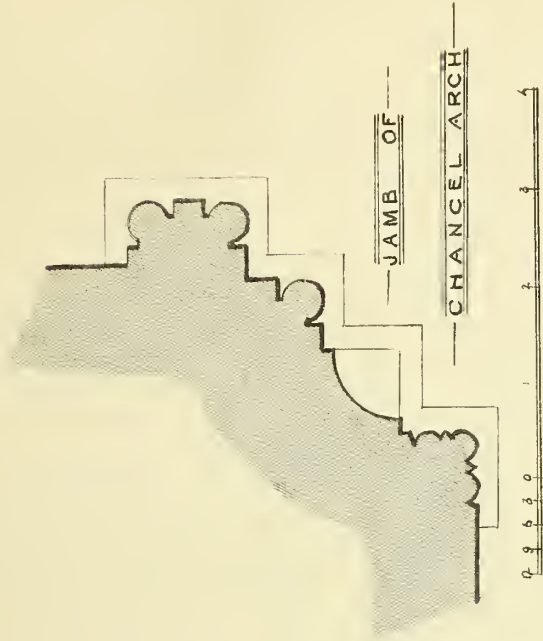
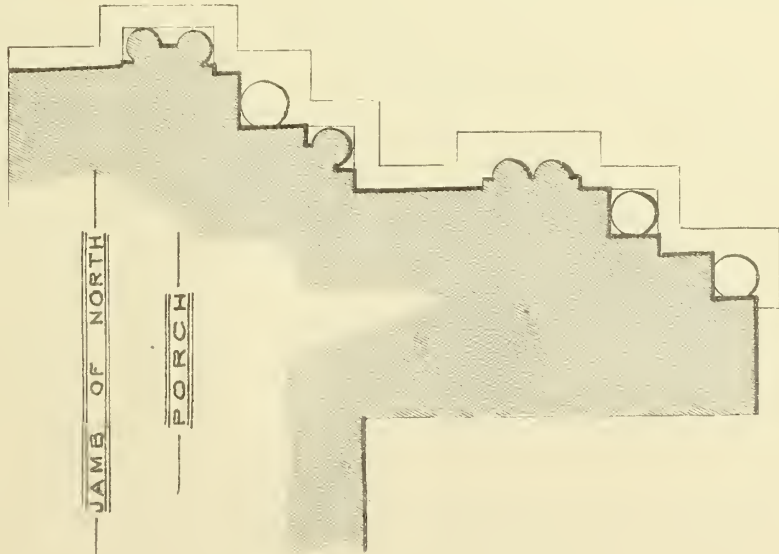


GROUND PLAN

UPPER FLOOR PLAN

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

CORMACS CHAPEL CASHEL



WINDOW IN SOUTH TOWER

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

published, sir, except to oblige a country curate or a religious fanatic with a prophetic turn of mind, and then only at the risk of the clerical aspirant on his road to fame.

"Tomson's-court was inhabited by flying stationers, waste-paper dealers, eating-house keepers, and surgeon-barbers in my early days—people, sir, that could shave well, and some of their descendants live yet to tell the tale. We will go back to the foot of the street, sir, and then return here again to the head. That was a fine old city mansion yonder. There were no 'jerry' builders, or brick-nogging done, in our city when that house was built. I forget the lord who built it, but it was currently reported, when I was in my teens, that the great Fabius of the Peninsular War was born there. It was one time the Ogygian Academy of Antiquities, and its library used to be resorted to very much by an eccentric class of old gentlemen, who wore goggles, knee-breeches, yellow gaiters, and shoes with large silver buckles. Dr. Garret was one of the strangest characters of them all. The people used to say, as he passed along the street, 'There goes the Provost.' Biddy, his housekeeper, was one day run over in the Broadway when she was going to Pike-corner to buy a farthing's worth of cream for the doctor's breakfast. Poor Biddy was carried off to Purser's Hospital, shrieking out that she was kilt entirely. The doctor, on hearing of the accident, went to see Biddy, for poor Biddy was for five-and-thirty years his only servant. The doctor, sir, was a very methodical man, and as particular in small things as large. He was a great authority on the abstruse sciences, and wrote a pamphlet once 'On the Disappearance of Pins, and what became of them.' On going into the ward where his servant Biddy was in bed, as soon as she saw him she sat up and broke out with her catalogue of grievances. 'Ochone, ochone, doctor dear, and sure I knew you would come to see me; and, doctor dear, as I was crossing Hoggin-green a car knocked me down, and the wheels—ochone, ochone—passed over me.' 'Aye, aye, Biddy, I know it all,' interrupted the doctor; 'but what became of the farthing?'

"That house there with the unicorn and lion over the door was the great publishing house of Lodges and Kitts. The name is kept up still, but the founders are dead half a century ago. In the days of the Revolution they published many brochures and pamphlets in defence of the policy of Lord Barendon—some of them written, sir, by a lawyer, who afterwards became a judge, and remembered to forget that he ever had held any political opinions at all. Let us go back.

"No. 59—or 59 that was—belonged in the last century to a famous Dublin builder, and for many years after was a marble yard. See the marks of a tablet over the archway. There's a date, sir, on that stone, but it is filled up with cement. What date—wait till I see. It was 1791, I think, but I quite forget now, it is so long since I last saw it. From this point up, sir, the street was very narrow formerly, but the Wide Street Commissioners some forty years ago got parliamentary powers, and Dapper-Dandy street got a stretch in the neck and a wider opening into Gallows-green.

"Hold, sir; this is Algiers-lane,—a handy retreat formerly for pick-pockets and cut-purses. It was never a thoroughfare, properly speaking, though there was an entry into it from South Queen-street through the back yard of the noted publican who used to harbour people of light character. Some years ago, sir, the notion was conceived of building a theatre on this spot, and it was actually carried into effect. The walls of this theatre are still standing, and the citizens used to call it 'Bunn's Folly.' Lor' bless your heart, sir, it never could compare with Smock Alley or Sycamore Alley Philharmonic, where Matthew Brachines used to play on half-a-dozen of instruments, although he had neither hands nor feet, but stumps. Gospel truth, sir. If you go to the museum you can see some of his drawings in their moth-eaten frames. Matthew was a

rare man and a great gun too. Dapper-Dandy street will never show such a prodigy."

Being close on dinner-time, I stood another drop to the "Oldest Inhabitant," and bid him good-bye until tomorrow, when he promises to accompany me as my cicerone thro' other portions of "Unknown Dublin."

THE BELFAST ARCHITECTURAL COMPETITION.

SOME time ago advertisements appeared requiring designs to be sent in to the Belfast Board of Guardians for new school buildings. The printed directions stated that £30 would be awarded to the successful competitor; certain requirements, however, were to be complied with by the architects competing. Several plans were in course of time sent in, and amongst them were those by Messrs. Young and Mackenzie. If it be true, as stated, that the latter gentlemen did not comply with the printed directions of the board, we think they are fairly out of court in the competition, and have no right to be awarded the prize. It appears, however, that they were subsequently allowed the liberty of amending their plans, so that they might be in conformity with the original conditions. A deputation of local architects, who very naturally felt aggrieved, considered it necessary to protest against the action of the committee of the Board of Guardians, and to wait upon that body, so that an explanation would be afforded or a reconsideration given to their decision. As far as we can hear or see by the report of the proceedings, the result of the deputation was fruitless, and Messrs. Young and Mackenzie's plans are finally determined upon, and are to be carried out.

We certainly consider that the conduct of the guardians or committee of the guardians has been irregular; and not only irregular, but illegal, and highly injurious and reprehensible. They were asked to submit a case to the Irish Institute of Architects, but this was refused. There is no doubt, if the case was submitted to the associated architects, or even to a local council of architects in Belfast composed of respectable members of the profession outside those immediately concerned, the plans of Messrs. Young and Mackenzie would be pronounced against. Even if these latter gentlemen's plans are in their present shape the most suitable (which we are not prepared to say), they are inadmissible for the reasons stated. If justice was intended to the aggrieved architects who have lost time and money, and who have faithfully complied with the printed directions, a fresh competition would have been acceded to. Far better would it be for the Board of Guardians to have called in at once any architect they desired to favour to prepare plans, than issue advertisements for an open competition which has been allowed to degenerate into a farce upon competitions.

We desire to do no injury by our comments to the successful competitors; but in the interest of the entire profession, we must earnestly protest against the conduct of the Board of Guardians, and we trust it will be long before we have to record such another act of injustice. Of late years the majority of architectural competitions in relation to local boards are mere shams, and the public advertisements are but covers to hide the foregone conclusions and scheming iniquity practised to the degradation of manhood and architectural practice. Many respectable

architects, knowing this, absolutely refuse to stultify themselves by entering into a competition on the invitation of public and local bodies, whose reputation for jobbing is on a par with the enlightenment that illuminates their proceedings and decisions.

OBITUARY.

THE LATE WILLIAM ROSS.

SINCE our last issue the city has lost a good employer and useful citizen in the person of Mr. William Ross, the senior partner of the firm of Ross and Murray, Middle Abbey-street. Mr. Ross was a Scotchman by birth, and, we believe, a native of Ayrshire; but it is nearly forty years since, as a young man, he entered this city. By energy and perseverance (which is a characteristic of his race) he got a footing in Dublin, and subsequently established a successful trade. His business was not confined to plumbing, brassfoundry, fitting, &c., but embraced building contracts in connection; for, in works of the class in which Messrs. Ross and Murray were engaged, building alterations are part and parcel. The firm had of late years a large staff of workmen employed in various departments, and were engaged on contracts in all parts of the country.

The deceased gentleman died at his residence, Ballinagowan House, Upper Rathmines, on the 16th ult., in the 62nd year of his age, and his remains were conveyed to Mount Jerome Cemetery on the 20th, accompanied by a large number of the workmen of the firm. The chief mourners were George and William Ross, sons of the deceased; Andrew Ganly, son-in-law to deceased; Messrs. Galloway Howard, Gwynne, Edward Law, George Lowe, James Robertsou, Robert Neilson, and R. W. Clymott. Amongst the professional gentlemen and citizens who attended the funeral were the following:—Sir John Gray, M.P.; Messrs. T. N. Deane, F.R.I.B.A.; William Todd. Wm. Findlater, Alexander Findlater, Adam Findlater, Joseph M. Saunders, James H. Owen, M.A.; Rawson Carroll, J. F. Fuller, J. J. O'Callaghan, E. Dwyer Gray, F. Franklin, J. McCurdy, G. Cockburn, T. Cockburn, Dr. David Moore, James Gauly Parker, T. Wardrop, William Wardrop, Thomas Wardrop, jun.; Henry Sharpe, Navan; P. Dromgool, W. McNaught, Allan Nichol, Alex. Ballantyne, C. McDonnell, David Priestly, R. Hay, J. McCoy, Drogheda; C. Stephens, Walpole Stephens, sen.; Loftus Redmond, W. Mulhall, J. Kennedy, Walter Doolin, W. Doolin, jun.; B. Take, S. Robinson, A. Strahan, C. Lavender, T. Heiton, J. McNaught, C. Brien, Peter Roe, &c.

OUR PUBLIC MARKETS.

A WRITER, under the signature of "A Citizen," writes in the *Saunders's News Letter* a good and practical letter on the state of our public markets, in which the conduct of our municipal council comes in for deserved animadversion. We have on more than one occasion ourselves commented on the state of our public markets of every class, old and new, and their neglected sanitary and ruined condition. The new Cattle Market might be accounted a financial success, and has yielded a good profit to the Corporation. There is, however, no necessity why monopolies should be allowed to exist for the benefit of any class of special individuals. The old Smithfield monopoly is preserved at the North Circular-road, the Corporation having played into the hands of the salesmasters to checkmate the project at the North Lotts. Matters are ripening again, and the market question will come on for an exhaustive discussion one of these days. All our present markets and their management must get a thorough overhauling and improvement, and extension must be the result. On another occasion we will return to the subject, and for the present we can commend to our readers and citizens at large the letter of "A Citizen" in *Saunders's*.

THE FUEL RESOURCES OF IRELAND.

THE above was the title of a lecture delivered on Friday evening, 22nd ult., by Professor Cameron, City Analyst, in the Large Concert Hall, Exhibition Palace. Amongst the audience were several scientific gentlemen and others deeply interested in this, at present, all-important subject. A map of Ireland on a large scale, specially prepared, showed the situation and extent of every bog in the country, the position and extent of the coal measures, and the localities where there were coal mines. A number of diagrams showing sections of rocks, the vegetation of the coal measures, and the forms of animal life found there, were also exhibited. Specimens of coal, lignite, brown coal, bituminous coal, anthracite, and of peat, crude and in different states of preparation, were shown.

The lecturer commenced by describing the climatic conditions which prevailed in Ireland during the carboniferous or coal-producing period. There was a moist and warm climate, somewhat similar to that of New Zealand at the present time. The vegetation was luxuriant, and consisted chiefly of calamints (related to the modern *quiseta*, or horsetails), *lepidodendrons*, *sigillaria*, *asterophyllites*, ferns, and firs. Most of these plants were of enormous size, and although nearly 700 species have been discovered in the coal measures, not a single species of whole classes of them exists at the present time. Very few vertebrate animals have been found in the coal; and more species have recently been discovered in the Jarrow Colliery, Co. Kilkenny, than in all the coal measures in the world. The lecturer exhibited a large amphibious animal, a new and extraordinary species of labyrinthodont reptile, which Mr. W. H. Bailey, paleontologist to the Irish Geological Survey, had just discovered, and which had not yet been described. The beds of coal appear to have been for the most part formed on the spot by the decay of forests. The vegetable matter became covered up with mud or fine sand, and the surface of the land subsided below the level of the sea. After a considerable period the land was upheaved, again became, perhaps for thousands of years, the seat of a luxuriant vegetation, and again became submerged. The alternate depression and upheaval of the surface of the ground, extending over vast, almost inconceivably great periods of time, produced the wonderful phenomenon of alternate layers of coal and rock, extending to a depth of from a few hundred to 12,000 feet. Although there are other views relative to the formation of the beds of coal, all observers admit that this fuel is of vegetable origin. The lecturer then proceeded to explain the chemical changes which took place during the conversion of wood into coal. Wood contains about 50 per cent. of carbon, 6 of hydrogen, and 42 of oxygen. By decay, where air is not present, the oxygen gradually flies off, carrying with it hydrogen and carbon, and forming with these bodies water and carbonic acid. Some of the carbon also goes off combined with hydrogen. As decay goes on, the fuel becomes richer in carbon and poorer in oxygen. Turf, which is nearest in composition to wood, contains about 60 per cent. of carbon and 32 of oxygen. Next we have lignite, which is scarce in Ireland, and which contains 62 to 64 per cent. of carbon and 25 to 28 per cent. of oxygen. Next in the series is brown coal, containing 64 to 65 per cent. of carbon and from 8 to 20 per cent. of oxygen. Then comes bituminous or ordinary flaming coal, with its 80 to 90 per cent. of carbon and 1 to 8 per cent. of oxygen. Lastly, in the anthracite or Kilkenny coal, there was from 90 to 95 per cent. of carbon and only traces of oxygen. The choke damp of the miners was carbonic acid, and the fire damp was carburetted hydrogen. About a thousand lives are lost annually in the coal mines, chiefly by explosions of fire-damp. Dr. Cameron next described the rocks in which coal can alone be found. Coal is a stratified mineral, alternating with shales and sandstones. The coal measures consist

of alternate beds of coal, ironstone, limestone, shale, clay, and sandstone. Beneath these beds are found grits, sandstone, shale, and sometimes a little coal, the whole being termed millstone grit. Beneath all the mountain limestone is found, and all these rocks form what is termed the carboniferous group. There is no use in looking for coal in the genuine mountain limestone, in the calp which occurs so abundantly in the counties of Dublin and Kildare, in any of the crystallised rocks, such as the granitic, trappean, or in any of the primary rocks, nor in the old red sandstone. In the silurian rock coal has been found, but only in minute quantities, and in the form of inferior culm or anthracite. In general, coal is found in the upper part of the paleozoic or "ancient life" division of the rocks, and in some countries these rocks rest directly upon the granite. Rocks in which the coal measures occur are almost completely wanting in Ireland, having been washed away during the glacial period. This is the reason why so little coal is to be got in Ireland. Professor Hull, Director of the Geological Survey of Ireland, estimates the amount of available coal in Ireland at 182,280,000 tons. In 1871 the total produce of coal in the United Kingdom was 117,352,020, of which only 165,750 tons were produced from Irish mines. All the coal in Ireland would not, therefore, suffice for more than eighteen months' consumption in the United Kingdom. People spend their money uselessly looking for coal in such places as the county Wexford and the neighbourhood of Drogheda and Dundalk. Those who believe they had coal mines should get the opinion of a scientific geologist, and not rely, as they often do, on that of a mere miner. North of a line drawn from Dublin to Galway the coal found was bituminous or flaming. South of it it was anthracite or non-flaming coal. Very good gas coal was got in Leitrim, and excellent cannel coal at Dungannon, in the north of Ireland. Some of the anthracites were very good, and the Mining Company of Ireland deserved credit for the energy with which they worked their valuable anthracite mines. Dr. Cameron referred to a new coal mine near Athy, which he had examined the previous day, and which he said is likely soon to yield 200 tons of good coal daily. It was owned by the Leinster Colliery Company. He believed that there was much more to be got out of the bogs than the collieries of Ireland. The total area of acres in Ireland, 20,800,000. The area of bog, mountain and flat, 4,390,000, namely—

Munster	..	..	..	1,260,000
Connaught	..	..	..	1,360,000
Ulster	..	..	..	1,140,000
Leinster	..	..	..	630,000
				4,390,000

As the turf averaged fifteen feet in depth at least, the quantity was almost unlimited. Air-dried turf of average quality, containing 30 per cent. of water, was equal to about half its weight of coal. When thoroughly dried, it was equal to about three-fifths of its weight of very good coal. It was usually free from sulphur, and made an excellent fuel. Various methods of condensing turf were described. In Lithuania it is pressed into cast-iron moulds by means of a rammer weighing 2 cwt. In Bavaria the air-dried turf is divided and pressed at such a temperature that partial carbonisation takes place, which evolving tar, the latter acts as a powerful cement. Gwynne dries the turf by a centrifugal machine, crushes it into a pulp, which is freed from moisture by a higher temperature. The turf is next ground in mills, and condensed in presses heated with steam. This peat has a specific gravity of 1.14, and is equal to three-fifths of its weight of the best coal. Manhardt passes the freshly-cut turf between rollers 6 ft. long. It forms thin plates, loses 60 per cent. of water, and can be rapidly dried. At M. Challeton's works, at Montanger, France, the turf is triturated by machines, and the pulp separated by means of a perforated metal drum from earth, fibrous roots, &c. The liquefied portion is conducted through several vessels, whereby a further

separation of sand, &c., is effected, and a perfect mixture of the peat particles accomplished. It next passes into shallow basins, perforated, and which permit the water to drain off. After a few days the turf becomes stiff, and is divided into bricks by means of a wooden lattice-work, and the final process consists of dessication. This turf is said to be only one-fifth inferior in heating power to coke. Dr. Cameron referred to Mr. Alloway's method of treating peat, which was simple and cheap and very effective. He also referred to Mr. Box's method, which he hoped would be adopted generally in Ireland, as it was sure to prove a great success. Mr. Box tears the peat to pieces by means of a powerful disintegrator, resembling the well-known one invented by Carr. The peat is next washed, so as to separate most perfectly the decomposed or coal-like portion from the more recent or wood-like part. The finer turf is then allowed to stand for some time, when its particles agglutinate by a natural process, and in a few months acquire almost the density of coal. This process is an extremely simple and economical one, and produces an exceedingly fine fuel, specimens of which were exhibited to the audience. The expense of manufacturing a ton of this condensed peat Mr. Box sets down at only 2s. 8d. Dr. Cameron said that by means of Siemens' gas furnace, air-dried turf might be used effectively in reducing iron from its ores. Among the samples of turf shown, there were several very dense ones, which Dr. Cameron had analysed for Mr. Dowling, solicitor, of Tipperary, who had formed a company to work a valuable bog in that county.

"THE QUERIST."

BY GEORGE BERKELEY, BISHOP OF CLOYNE.

(With Notes by "Dubliniensis.")

"FIRST PUBLISHED A.D. MDCCXXXV."

WHETHER, without private banks, what little business and industry there is would not stagnate; but whether it be not a mighty privilege for a private person to be able to create an hundred pounds with a dash of a pen? [This privilege, and the temptation to use it to other people's loss as well as a person's own, has brought hundreds to beggary and the gallows.]

Whether the wise State of Venice was not the first that conceived the advantage of a national bank?

Whether the great exactness and integrity with which this bank is managed be not the chief support of that republic?

Whether the Bank of Amsterdam was not begun about one hundred and thirty years ago; and whether at this day (1735) its stock be not conceived to amount to three thousand tons of gold, or thirty millions sterling? [Yes, it was conceived, but it was an illusion; and notwithstanding the stability of that bank for a number of years, it came to grief eventually, as we have already shown.]

Whether all payments of contracts for goods in gross and letters of exchange must not be made by transfers in the bank books, provided the sum exceeds three hundred florins?

Whether it be not owing to this bank that the city of Amsterdam, without the least confusion, hazard, or trouble, maintains and every day promotes so general and quick a circulation of industry?

Whether it be not the greatest help and spur to commerce that property can be so readily conveyed and so well secured by a *compte en banc*, that is, by only writing one man's name for another's in the bank books?

Whether at the beginning of the last century (seventeenth) those who had lent money to the public during the war with Spain were not satisfied by the sole expedient of placing their names in a *compte en banc*, with liberty to transfer their claims?

Whether the example of those easy transfers in the *compte en banc* thus casually created did not tempt other men to become creditors to the public, in order to profit by

the same secure and expeditious method of keeping and transferring their wealth?

Whether this *compte en banc* had not proved better than a mine of gold to Amsterdam?

Whether that city may not be said to owe her greatness to the unpromising accident of her having been in debt more than she was able to pay? [So with all our great industrious pioneers, who, though they began life on nothing, yet, having failed for thousands, began again, like the spider whose web was broken, repaired their losses, and died with colossal fortunes.]

Whether it be known that any state from such small beginnings in so short a time ever grew to so great wealth and power as the province of Holland hath done; and whether the Bank of Amsterdam hath not been the real cause of such extraordinary growth? [Yes, the Bank of Amsterdam gave a spur to the industry of the Dutch, and enabled them to construct those famous dykes, and win back hundreds of acres from the sea.]

Whether the success of those public banks in Venice, Amsterdam, and Hamburgh would not naturally produce in other states an inclination to the same method?

Whether it be possible for a national bank to subsist and maintain its credit under a French government?

Whether our natural appetites as well as powers are not limited to their respective ends and uses; but whether artificial appetites may not be infinite? [Of a verity.]

Whether the simple getting of money or possessing it from hand to hand without industry be an object worthy of a wise government? [Certainly not. If the intention to promote industry does not exist, and is not carried into practice, the simple getting and transferring of money from hand to hand will be productive of little benefit beyond a passing one.]

Whether, if money be considered as an end, the appetite theory be not infinite; but whether the ends of money itself be not bounded?

Whether the total sum of all other powers, be it of enjoyment or action, which belong to man or to all mankind together, is not in truth a very narrow and limited quantity; but whether fancy is not boundless?

Whether this capricious tyrant which usurps the place of reason doth not most cruelly torment and delude those poor men, the usurers, stock-jobbers and projectors, of content to themselves from heaping up riches, that is, from gathering counters, from multiplying figures, from enlarging denominations without knowing what they would be at, and without having a proper regard to the use, or end or nature of things?

Whether the *ignis-fatuus* of fancy doth not kindle immoderate desires, and lead men into endless pursuits and wild labyrinths?

Whether counters be not referred to other things which so long as they keep pace and proportions with the counters, it must be owned that counters are useful, but whether beyond that to value or covet counters be not direct folly?

Whether the public aim ought not to be that men's industry should supply their present wants, and the overplus be converted into a stock of power? [The legitimate exercise of every man's industry in the country, who has the use of his faculties, ought to be able to supply his necessities, and even afford a surplus for his old age to fall back upon. The aim of all good government should be to see that none were idle, and allow none who should work to be idle. Man's private industry in the earliest times procured him sufficient of his primitive food. Civilization fails to do for man what semi-babbarism (as we are prone to term it) did for him.]

Whether the better this power is secured, and the more easily it is transferred, industry be not so much the more encouraged?

Whether money more than is expedient for those purposes be not, upon the whole, hurtful rather than beneficial to a state?

Whether the promoting of industry should now be always in view, as the true and sole

end, the rule and measure of a national bank? And whether all deviations from that object should not be carefully avoided?

Whether it may not be useful, for supplying manufactures and trade with stock, for regulating exchange, for quickening commerce, for putting spirit into the people?

Whether we are sufficiently sensible of the peculiar security there is in having a bank that consists of land and paper, one of which cannot be exported, and the other is in no danger of being exported? [Land cannot certainly be exported; but the title deeds of land can unfortunately be not only exported, but transferred and passed into banks outside this island as securities. The unfortunate shareholders of the Tipperary Bank, of which the late John Sadlier was a director and something more, have reason to regret their securities passing into that bank, from which they were eventually transferred by the redoubtable John to the London and County Bank across channel, of which the said John was a director also. This exportation of other men's property in land to raise money to save the Irish banker's disgrace, only hastened more effectually the ruin of the principal speculator, but also the ruin of his too-confiding countrymen.]

Whether it be not delightful to complain; and whether there be not many who had rather utter their complaints than redress their evils? [The liberty to complain relieves the minds of many persons who live by their complaints, as some mendicants do by hawking their sores. Some people would spoil their occupation if they allowed their evils to be redressed. In great things, as in small, the principle will be found alike. A flea is but a small thing, yet the extinction of fleas would no doubt make many individuals feel very lonely for something to amuse them or to complain of.]

Whether, if "the crown of the wise be their riches" (Prov. xiv. 24), we are not the foolishlest people in christendom?

Whether we have not all the while great civil as well as natural advantages?

Whether there be any people who have more leisure to cultivate the arts of peace and study the public weal? [First person singular, I love, is the grammar of the common weal with the majority of folk in our island in these days.]

Whether other nations who enjoy any share of freedom, and have great objects in view, be not unavoidably embarrassed and distracted by factions; but whether we do not divide upon trifles, and whether our parties are not a burlesque upon politics? [Both our parliamentary, national, and municipal parties, or rather factions, are a burlesque upon politics, legislature, and local government.]

Whether it be not an advantage that we are not embroiled in foreign affairs, that we hold not the balance of Europe, that we are protected by our fleets and armies, that it is the true interest of a powerful people, from whom we are descended, to guard us on all sides?

Whether England doth not really love us, and wish well of us, as bone of her bone and flesh of her flesh; and whether it be not our part to cultivate this love and affection all manner of ways? [Politicians will answer this, and each faction in a variety of ways. We don't desire to hear the answers or the expletives, which no doubt in some quarters will be racy of the soil.]

What sea-ports or foreign trade have the Swisses, and yet how warm are those people and how well provided? [Yea, how hardy and industrious also.]

Whether there may not be found a people who so contrive as to be impoverished by their trade; and whether we are not that people?

Whether it would not be better for this island if all our fine folk of both sexes were shipped off to remain in foreign countries, rather than they should spend their estates at home in foreign luxury, and spread contagion thereof through their native land? [This country, and this city particularly,

would be wonderfully benefited if her leading thoroughfares and fashionable streets were thinned half-yearly or quarterly by weeding from the ranks a number of bucks, fops, dawdlers, Dundrearys, and half-sirs, and shipping them off to some island where work is indispensable that men may live. A few Jemimas, Georginas, Julianas, Sophias, and Miss Biddys might also be packed off at the same time to some Patmos where pianos and crotchet fiddling are unknown, and where darning a stocking and cooking a joint are deemed a more fitting accomplishment for a lady than practising the fine arts on her face and person, and exhibiting the pictures of this depraved artistic taste upon the flags of the city.]

Whether our gentry understand or have a notion of magnificence, and whether for want thereof they do not affect very wretched distinctions? [Very wretched distinctions are indeed affected by grown-up persons of both sexes, who are only living from hand to mouth; and equally wretched distinctions are affected by the children of those people, who, if their parents died, would not know where to turn or how to earn a loaf, though they are proficient in the art of eating it.]

Whether there be not an art or skill in governing human pride, so as to render it subservient to the public aim?

Whether the great and general aim of the public should not be to employ the people? [Undoubtedly.]

What right an eldest son hath to the worst education? [All children of a family have equal right to a good education, but the education of each should be varied and directed to the possible object or end in view to be attained on the part of each.]

Whether men's counsels are not the result of their knowledge and their principles? [Good counsel is the result of good sense and good knowledge. Bad counsels are not always the result of the man's knowledge who may volunteer it to subserve his purpose; rather it is the bad man's principle instead of his knowledge.]

Whether there be not labour of the brains as well as of the hands, and whether the former is beneath a gentleman? [The labour of the hands possesses as much dignity as that of the brains. Both require study and practice, if the labour is to be of service to mankind. Those who are too indolent to acquire knowledge for the use of the brains, the labour of their hands will not be of a very high order. Neither the labour of the hands nor the brain ought to be beneath a gentleman; but unfortunately a great number of our so-called gentlemen are above labour of any kind, and, by being above it, of course the labourer as well is considered as actually beneath them.]

Whether the public be more interested to protect the property acquired by mere birth than that which is the immediate fruit of learning and virtue? [The public are prone to look upon the property acquired by birth as something superior to that acquired by the latter. That which is the immediate fruit of learning and virtue must be to a great extent the fruit of industry also, and the property acquired by industry should interest the public more, and receive equal protection as that obtained by birth. If respect is to be given to the possessor of each kind of property, the man of industry is entitled to the first award.]

Whether, it would not be a poor and ill-judged project to attempt to promote the good of the community by invading the rights of one part thereof, or of one particular order of men?

Whether there be a wretched and at the same time a more unpitied case than for men to make precedents for their own undoing?

Whether to determine about the rights and properties of men by other rules than the law be not dangerous? [And by the law it is often most hazardous and dangerous to determine the rights of property, unless a man's credit at his banker's is an extensive one. When an appeal to law is rendered

as easy for the poor man as for the rich, and when equity signalises every judge's charge and jury's verdict, then law will no longer be, as it is now, dangerous to honest men as well as to knaves.]

(To be continued.)

THE DUBLIN SCHOOL OF ART.

WE are pleased to hear that considerable progress is of late being made by the pupils in the Royal Dublin Society School of Art. The management shews a decided improvement on former years. The council report with satisfaction the increasing efficiency of the school. Such teaching as is now given in the school cannot but have a great influence on the future of this island. Our manufacturers will be able to procure at home the class of designs in each branch of trade they require, without sending outside the island. From the report of the working and success of the several departments under the control of the Royal Dublin Society, we annex here the portion in relation to the School of Art:—

"The Council has much satisfaction in reporting that the school continues to maintain its efficiency. Mr. Lyne, the head master, reports that the number of students for the year ending 31st of July, 1872, was in excess of that of the previous year. A very numerous collection of works in drawing, painting, and modelling, consisting of studies of students, of both sexes and all classes (both elementary and advanced) were forwarded to London for examination in April last. Such works represented very fully and satisfactorily the general progress of the school, along with the methods of study pursued therein; and nearly every stage of the art course was fairly represented. The total number of such studies amounted to 658. The number of Queen's prizes obtained at the National competition on the last occasion was four, along with twenty-four of the highest prizes, or those of the 'third grade.' The very considerable number of forty-three works were selected to enter into national competition. As regards the local examination of the school in those subjects connected more immediately with elementary art education, as freehand, practical geometry, projection, perspective and object drawing, eighty-nine students were successful in one hundred and twenty-one exercises in the abovenamed subjects. Thirty-three prizes and eighty-eight certificates were gained—a result perhaps upon the whole more satisfactory than has ever on any former occasion been attained, considering the very considerable rise in the standard that from time to time takes place. Of full second grade, or teachers' certificates, fifteen were gained, a number exceeding that of any previous year. The display of students' works constitutes a most interesting feature in the present Dublin Exhibition. Such studies represent the leading stages of instruction pursued in the society's schools, and are calculated to influence most favourably the practice of art instruction generally both in this city and throughout Ireland. The council have much pleasure in reporting that Sir Arthur Guinness, Bart., presented free tickets of admission to many of our students distinguished for their ability and industry, as displayed in their exhibited works. These works represent the ordinary competition studies of the school, and constitute such a display as it would be difficult to surpass. In the report of the Inspector General for Art, last published, the good works produced in the society's schools are referred to. An evening class for female students, recently established, is progressing favourably, and is calculated to prove most beneficial to those whose occupations prevent their attendance upon our day classes. Many avail themselves of the regulation enabling pupils of public and other schools, artisans, &c., to attend the evening classes, male and female, at reduced rates, on condition that not less than six attend from any one school or establishment. In order to stimulate and encourage those numerous pupils of external schools, in which drawing classes are held, in Dublin and its vicinity (classes chiefly established and organised by me during the years 1863, 1864, and 1865, and taught through the agency of the School of Art), a system of examination has been established to take place annually in the Central School. The small bronze medal of the society, along with certificates, will be given to a certain number of those who distinguish themselves by their proficiency on these occasions. When this arrangement is more widely known, it is probable that such examination will be very numerously attended. A lending library has been recently re-established for the students; it is proposed to lend,

for study at home, text-books on art and other technicalities. The more valuable works, however, are to be consulted and referred to only in the school itself. The organization of a class for the study of landscape, &c., from nature occupied much of the attention of the head master during the month of July. Many promising preliminary studies were made. In connection with this branch of study, the school is much benefited by the fine and valuable examples of water-colour art, &c., that are received from time to time on loan from the Department of Science and Art. A competition has recently taken place between the leading students of the schools generally of the United Kingdom, having for its object the selection of nine students qualified to make copies for the Government of the cartoons of Raphael, and I am happy to state that one of our students has been successful in the preliminary test. The works of four other students of the school, of great merit, have not up to the present time been considered by the examiners. The demand for original designs executed in our school continues to increase, and several manufacturers have offered money prizes for designs in various branches of manufacture. Messrs. Pim have recently produced several designs of great beauty in figured damask, executed by our students, and others are now in progress, intended for the great exhibition of Vienna. The present position and prospects of the school are most encouraging, and as regards fees and attendance during the present month, there is every prospect of an increase in both over former years. The head master remarks upon the effect produced by this school's teaching of late years, not on manufacturers only, but also the great influence it has exercised in forming a more healthy taste throughout the entire community. These schools have served to give the initiative as regards art instruction, and their influence and example has been, and is, leading to the adoption generally in this city, and country of a more consistent and thorough system of instruction, having for its object the real promotion and advancement of art. Such a system is happily gradually superseding the empirical teaching once so general.

ROYAL DUBLIN SOCIETY.

AT a general meeting of this society held during the last month, a detailed report was read by the registrar of the present state of the many departments under the control of the society, and of the progress made therein. Elsewhere we have given that which relates to the Art School. The Marquis of Kildare as President, and Lord Talbot de Malahide as the Chairman, could not occupy better positions for doing good for the common weal of this country. The following particulars relating to the working and management of the department, not elsewhere described, will be found both interesting and instructive:—

"THE FUEL QUESTION.—Public attention has been so forcibly directed to this subject, in consequence of the great increase of late in the price of coal, that the committee of science have considered it their duty to examine into the question, with the view of ascertaining how far peat may be employed as a substitute for coal, for industrial as well as domestic use.

"The relative heating value of carbon, coal, and peat are shown by the following table:—

Fuel.	Calorific Value.
Pure Carbon	100.0
Average Scotch Coal	97.6
" Lancashire Coal	95.5
" Air-dried Peat	52.2

"As no mechanical treatment to which peat can be subjected in course of preparation can affect its absolute heating value, it follows from the above well-ascertained data that the cost of a ton of air-dried peat must not equal that of half a ton of coal, if the former fuel is to successfully compete with the latter for household use. This question being a purely economic one, and all the data well known, the science committee directed their attention chiefly to the solution of the more difficult problem of the utilisation of peat effectively for industrial purposes. The committee have ascertained that rough air-dried peat compares more favourably with coal as regards effective heating power when burned in Siemens' Regenerative Gas Furnace, than when used in any other known way. Further, that peat is a very convenient and suitable fuel for Siemens' furnace; and, finally, that this particular form of furnace is eminently adapted to a very large number of manufacturing purposes—in fact, to most in which a very high temperature is required. It, therefore, now rests with manufacturers to use

the power evidently at their disposal. The full report of the science committee on this subject has already appeared in the minutes of the council.

"AGRICULTURAL AND OTHER ANALYSES.—In the Chemical Department material progress has been made both in the number of analyses performed by the society's Professor of Analytical Chemistry, and in the variety of the substances submitted for examination. Dr. Reynolds reports that the adulteration of artificial manures has occupied a large amount of attention, and special arrangements have been made with a view to facilitate analyses of samples, and to obtain a greater check than has hitherto been possible over the sale of adulterated and inferior articles. During the summer a considerable number of iron ores from different parts of the country have been analysed for technical purposes; and also samples of Irish and Continental peat, with a view to the determination of their relative value as fuel. In articles of food and drink some bad cases of adulteration have been met with, especially in the chief articles of consumption. Dr. Reynolds also reports that considerable progress has been made with the investigation of a number of new silicon compounds; and he has been invited to make the inquiries in silicon chemistry carried on in your laboratory the subject of one of the opening discourses that he has been requested to deliver before the Royal Institution of Great Britain.

"MUSEUM OF NATURAL HISTORY.—The Director of the Natural History Museum, Dr. Carte, reports that the collections, both of mammalia and birds, have, during the past year, undergone a strict revision, and, through the incorporation of additional specimens, illustrate with increasing completeness the range of different families. A fine adult male specimen of the orang-outang has been obtained, and, with its skeleton, will be exhibited to the public as soon as a suitable case shall have been provided by the Board of Public Works. This specimen will form a very attractive object, as being the first full-grown example of this anthropomorphic ape which has reached this country. A skeleton also of that rare extinct bird the dodo (*Didus ineptus*), recently acquired from the diluvial deposits of the Island of Mauritius, has been set up, and illustrates the form and structure of this very singular type of extinct birds. Several interesting additions have been made to the conchological collection, including specimens of *voluta coronata*, *v. elliotii*, *bulimus rosaceus* with egg, and a very perfect specimen of that remarkable mollusk, *magilus antiquus*. Measures are now being taken to remount the entire series of shells upon fresh tablets, for which purpose a uniformly tinted paper has been obtained, by which means their arrangement and appearance will be materially improved. A number of reptiles and fish have been mounted in glass jars, and are for the present displayed in the lower room of the Museum. A most important donation has been made by Sir Richard Griffith, Bart., who has most liberally presented to the Museum his valuable series of Irish fossils, comprising all the authentic typical specimens which have been described and figured by Messrs. McCoy and Salter in their 'Synopsis of the Silurian and Carboniferous Fossils of Ireland.' These will shortly be arranged in the lower room of the Museum, and will form a most useful and instructive collection for the use of students of Irish palæontology. A new system of gas illumination has been introduced in the Museum, by which a more brilliant light has been secured at a less expenditure of gas, and consequently at a less cost than heretofore. The Museum has been visited from the 1st January to the 31st October inclusive, by 53,525 in the evenings, 9,152 in the daytime, realising a total of 62,677."

In respect to the Botanic Gardens Department there is nothing new to add, save that the gardens have been visited by a very large number of visitors and strangers, chiefly Englishmen and Americans. The director has also been enabled to add a considerable number of fresh plants, and some entirely new species. An increase of pay to the gardeners and labourers employed has been sanctioned by the Treasury. Their pay was heretofore quite inadequate for their support.

In respect to the Library of the Royal Dublin Society, it still continues to be much frequented by students and the public generally. An indexed catalogue is, we are glad to hear, in preparation, and appliances for press marking. The Conversation Room is at present under repair, and when completed will be newly furnished with the requirements it needs.

Among the list of donations towards the society are reported as follows:—

"FOR THE LIBRARY.—From W. H. Archer, Esq., the Registrar-General of Victoria; E. T.

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FOR THE NATURAL HISTORY MUSEUM.—By G. A. Ferguson, Esq.; Colonel Dwyer, Rev. Edward Nagle, Miss Gillespie, C. Fleming, M.D.; Rev. B. Adams, R. P. Williams, Esq.; F. Keenan, Esq.; R. Manning, Esq.; Captain Riall, R.N.; Mr. E. Dockrell, Dr. Battersby, and Captain Kelsall.

TECHNICAL EDUCATION AND HANDICRAFTS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Your article under the above heading in the last issue of your paper has set me a-thinking upon the matter of technical education amongst craftsmen; and I make bold to give expression to some of my thoughts. I am four years apprenticed to the trade of house-carpentry, and until about six months ago, when I had the good fortune to be placed alongside a journeyman who knew the why and the wherefore for every line he drew and every cut he made, I was absolutely groping almost in the dark. It may be humiliating to make this confession, but I know many journeymen who are not much better. They do their work the same as they see or have seen others do it, and if one asks the question why they do it after any particular method they can only say that it was the way they were taught. So that a boy who is desirous of becoming a carpenter must learn everything by the rule of thumb, and then depend upon his memory in after-life in order to earn a livelihood. Perhaps all this is because I am working under a foreman of the old school, and that I have, unfortunately for myself, chosen a shop where a bad system is carried out. The men are not altogether to blame, for, as a rule they have little time to devote to the apprentice, who must watch and pick up as he goes along. Don't you think it ought to be the duty of the foreman in charge to explain to the boy in an intelligible manner how to do his job, and when a technical term is used explain it so as to convey the proper meaning? I am certain that if I were told once how to do a job that I never tried before, I would be of greater benefit to my master; but I scarcely ever get a piece of work to myself. Now it's "try up that," and then it's "mortise this," which I do without knowing what part of the work I am assisting at. From what I see around me. I believe it is as bad for a man to know all about his business as to be only indifferently acquainted with it, for the "poor hooks" very often know how to humour the foreman, which makes them all right for a constant job.

I often hear the men tell stories of foremen and their shifts, their likings and dislikings, and certainly I think the race very eccentric. One would come upon the ground and abuse everybody, and wind up his tirade with a few oaths; and if they only bore with his "ways" he would ask every man Jack of them out to have a pint, and depart quite contented. If you only got another into conversation about a meershaum pipe, you were the white-headed boy, and you might do as you had a mind. The next was a lover of terrier dogs, and if you told him where he would get a good one, or praised his own, you would never be "sacked."

In the majority of instances the best plan for to pursue, as things are now, is, above all, to appear to know nothing; for if it be once known that you are smart, the employer gets a whisper; or where the power of the foreman is absolute, off you go. Would it not be better if employers went more amongst their

men than they do. If they did, things would go on in a more profitable way; and where men were capable of working from drawings, let them do so. Let honour be given where honour is due, whether to foreman, journeyman, or

APPRENTICE.

EDMONDSON'S TRANSLUCID ALKALINE TRACING PAPER.

WE would direct the attention of architects, draughtsmen, builders, clerks of works, foremen, and others who have to do with copying of plans, designs, and drawings, to Mr. T. Edmondson's new article. We have ourselves tested it, and can candidly vouch that for extreme and almost crystal transparency it surpasses any tracing paper that has come under our notice. Added to its transparency, it has another quality which must recommend it to the professions who may require it, and this quality has long been desiderated. It possesses marvellous strength as well as transparency, and when pressed close to the drawing required to be copied, the original can be plainly discerned to its very minutest line, rendering the tracing a matter of the greatest ease. We need say no more, and in justice we could not say less, in commendation of this new article.

BOOKS RECEIVED.

Cassell's Technical Educator. Vol. IV. London, &c.: Cassell, Petter, and Galpin.

THIS, the fourth, volume completes the series of this truly valuable work issued by the enterprising firm above-named. The subjects are continued from the previous volumes, treating on every topic almost. The frontispiece to this volume is an illuminated design for a book cover.

A Treatise on Waterworks for the Supply of Cities and Towns. By Samuel Hughes, F.G.S. New edition, revised. London: Lockwood and Co.

WE must hold over our review of this work till next issue.

ROYAL INSTITUTE OF THE ARCHITECTS OF IRELAND.

THE opening meeting of session 1872-3 took place on Thursday evening, 21st ult., under the presidency of Mr. J. H. OWEN, M.A.

Besides a large gathering of the members, there were present several distinguished visitors.

The report of council was read by the honorary secretary. We make room for a few extracts therefrom:—

"In the past session some useful work in the interests of the profession has been done. In one department—that of providing papers to be read at the stated monthly meetings during the session—the Institute has been even less successful than in former years. It must be now recognised that, owing to the limited number of architects in Dublin, and the extent to which the yearly increasing custom of our members having their residences at a distance from the city has grown, the programme with which the Institute started of holding a general meeting each month, and providing a paper to be read at it, cannot be maintained. It will be for the council of the coming session, while urging renewed zeal and energy on the members, to consider how, in the face of circumstances beyond control, the programme of business may be recast so as to be more in harmony with our numerical force and capabilities.

"The council has throughout the session met with unabated regularity and fair measure of attendance of members, and the vigilance exercised by it in entertaining all matters affecting the welfare of the profession arising from day to day, of dealing with matters of difficulty referred to it, and in considering the claims of candidates for admission, has not been less than in previous years.

"The most important occurrence of the year which your council has to revert to is the establishment by the younger men connected with the profession of an Architectural Association, founded generally on the model of the London Architectural Association. It will be in the recollection of the members that at a former period the Institute endeavoured to promote a somewhat similar project for the mutual im-

provement of the young aspirants to the profession. It is needless to say this movement has had the warmest sympathy and countenance of your council, and many of the elder members have joined its ranks with cordiality and interest, believing with your council that through its agency one of the foremost objects of the Institute—that of imparting information to the younger men connected with it—would be supplemented and more effectually carried out, than under the immediate auspices of the council and officers of the Institute."

The president then delivered his inaugural address, which we print on page 317.

The election of office-bearers for session was next proceeded with, after which the meeting adjourned.

THE ROOF OF CORMAC'S CHAPEL, CASHEL.

SIR,—In a recent issue of the IRISH BUILDER you represent the roof of Cormac's Chapel by two straight lines to show outside surface, whereas, from my recollection of a personal visit some years ago, it was of cut-stone and beautifully "rebated." As your diagrams will be taken as an authority, it is a pity not to correct the mistake. T. J.

[The ashlar casing of the roof of Cormac's Chapel, Cashel, is not rebated, as stated by our correspondent. In the repairs executed at Cashel some years since, a raised barge was formed on the roof, slightly rebated, but it was quite an innovation, for which there was no authority in the original roofing.—Ed. I. B.]

L A W.

COURT OF EXCHEQUER, NOVEMBER 23RD.

O'Grady v. Cardwell.—In this case the plaintiff, who is a contractor, entered into a contract with the defendant for the execution of painting works at the Athlone Barracks. The contract was a War Department contract, and was accepted "on behalf of her Majesty's principal Secretary of State for War," who undertook to pay the sums due under the contract, according to the terms of same. The plaintiff sought damages for breach of the contract in not giving possession of the barracks at the time stipulated. There were also counts for money due on the account between the parties, for trover and detinue. At the trial the Chief Baron directed a verdict for the defendant, reserving to the plaintiff leave to move to change the verdict.

His Lordship now gave judgment on defendant's motion showing cause against a conditional order to enter the verdict for the plaintiff, and stated that the Court (save Baron Dowse, who took part in the decision) had no alternative but to declare that under the acts 5 and 6 Vic., cap. 94, and the 18th and 19th Vic., cap. 117, the Secretary of State for War was made personally exempt from liability in respect to contracts entered into by him on behalf of the War Department. The Court were bound to so decide, and they did so altogether irrespective of the construction to be put upon the terms of the contract itself. It was, no doubt, a lamentable thing that if a party entering into a contest of this kind, probably in ignorance of the law, had a case of merits, he could not try it out with the head of the department with whom he supposed he had contracted. But the Court had nothing to do with proprieties, or equities, or expediencies in relation to such a contract as that under consideration. All they had to do was to determine, according to the authorities where these authorities applied, and in conformity with express enactments, when those enactments existed. Here they did exist in terms freeing the Secretary of State for War from all personal liability in respect to contracts made on behalf of the War Department. If parties made contracts without advice they should take the consequences. Probably, as a general rule, parties found it was quite safe to trust to the intelligence and honesty of the Public Department.

Verdict for the defendant affirmed.

TO CORRESPONDENTS.

J. T. S.—A few letters addressed to you lie at our office. M. L. and Co.—Shall be attended to.

E. and P.—Photo. to hand. Thanks.

W. B.—We have received your letter respecting the obstructions to foot passengers through Talbot-street and Earl-street. We have ourselves more than once pointed out to the police their duty in the matter, which is plain. Try a few lines addressed to Committee No. 1, City Hall. We shall consult the Act of Parliament, and let you have chap. and sec. referring thereto.—We hope you don't object to the *al fresco* shops so elaborately decorated with pigs' heads at 4d. per lb.!

HOME AND FOREIGN NOTES.

VESTIGES OF AN ANCIENT RACE.—Curious traces of an ancient people have just been discovered by the engineers of the Northern Pacific Railway Company in Washington Territory. Mounds have been found containing pottery and other relics of a perished race.

NARROW GAUGE RAILWAY.—A narrow-gauge railway has been constructed at Aldershot by Mr. Fell. The gauge is 18 inches and the cost estimated at £1,500 to £2,000 a mile; trial trips were made over the line a few days since. The train glided smoothly along at an average speed of from 15 to 20 miles an hour—30 miles being the maximum attainable, and attained.

EXTRAORDINARY DEATHS.—There was a death registered in England in 1870 from every one of the following causes:—The bite of an adder, the bite of a rat, a cat sleeping on the face, swallowing a pin, swallowing a cherry-stone, putting a bead in the ear, hæmorrhage from the extraction of a tooth. These were all deaths of children. An old man died from the bite of a cat, and a woman from the prick of a thorn.

PUDROLYTHE.—The Patent Safety Blasting Powder Company is formed with a capital of £50,000, in 10,000 shares of £5 each. For the purchase of the letters patent for the United Kingdom, granted to Mons. Poch, chemist, Brussels, for the exclusive right to make, sell, use, and grant licenses for the manufacture of a new chemical compound termed "Pudrolythe," which may be advantageously used in mines and quarries of every description for blasting purposes as a substitute for gunpowder, and which for economy and safety supersedes that and all other explosive agents now employed. According to the evidence obtained by the directors, "Pudrolythe" may be stored away for any period, conveyed in any manner by land or water, and subjected to all temperatures of climate without the slightest possibility of explosion or injury. Unless it is compressed, "Pudrolythe" when fired will not explode like gunpowder, but only ignites and burns slowly away as paper when impregnated with saltpetre. The use of "Pudrolythe" will, it is believed, effect a saving of quite 40 per cent. to the consumer, which, independently of its safety, freedom from smoke, and non-liability to spoil, is sufficient to recommend it.

CAMPHOR-WOOD.—The camphor-wood boxes brought from China and the east are well known for their strong preservative odour, and are found useful in keeping away moths from woollens and furs. The China and Japan camphor tree belongs to the laurel family, but that of Sumatra and Borneo is the dryobalanops camphora. Even the leaves and fruit smell of camphor. In Sumatra this tree is abundantly met with on the west coast, chiefly in the extensive bush, but seldom in places more than 1,000 ft. above the level of the sea. The tree is straight, extraordinarily tall, and has a gigantic crown, which often over-tops the other woody giants by 100 ft. or so. The stem is sometimes 20 ft. thick. The Barus camphor of this island is the most esteemed of any, and it is for this drug, obtained in but small quantities—seldom more than half a pound to a tree—that is ruthlessly destroyed. The tree, when felled, is divided into small pieces, and these are afterwards split; upon which the camphor, which is found in hollows or crevices in the body of the tree, and above all, in knots or swellings of branches from the trunks, becomes visible in the form of granules or grains. An essential oil also exudes from the tree in cutting, which is sometimes collected, but is scarcely remunerative. On the west coast of Formosa there are forests of camphor-wood, and a great deal of crude camphor is shipped thence to Amoy and other Chinese ports. Large quantities of the wood are sawn into planks. Tables and cabinets are then made of it, and it is also turned into platters and washing basins. Only a small portion of the vast camphor forests of Formosa has been reclaimed from its wild inhabitants, and this consists of fine tall trees, the growth of ages. When a tree is felled, the finest part of the wood is sawn into planks, the rest chopped small and boiled down for the camphor.—*The Garden.*

ADOPTION OF THE METRE BY THE INTERNATIONAL CONGRESS.—The Congress sitting at Paris to consider the policy of adopting one universal base for the measures and weights of all countries has unanimously agreed that such an arrangement would be of great importance to the commerce of the world; and further, that the French metre presents the greatest advantages for such an universal standard. The decision of such a body of men as form this Congress cannot fail

to command respect. France was naturally represented by several of her *savants* and high officials; England by the Astronomer Royal and Mr. Chisholm, Conservator of the Standard Weights and Measures of England; and Russia, Austria, Germany, Italy, Spain, Belgium, the United States of America—in short, nearly every state in the old and new worlds—were represented by their astronomers or other *savants* or by their plenipotentiaries. The mere adoption of the principle is far from being the whole of the work that has to be achieved. In order to adopt the metrical system with success every country must not only be provided with perfectly accurate standards of the metre and the gramme—the two units of the system—but means must be taken for the perfect preservation and mathematical testing of such standards, and the Congress is now engaged in discussing the measures to be taken in the matter. Such a system of international standards will certainly require great skill and care in its establishment and maintenance, but everyone will admit the necessity for each country possessing accurate standards of its weights and measures, and no additional trouble will be caused by the fact—should the metrical system be really adopted throughout the world—that these sets of standards are identical one with the other; on the contrary, the means of comparison one with the other will furnish the best possible security for the accuracy of all. An universal system of weights and measures will be welcome to all who have dealings with, or interest in, the affairs of other nations. The scientific bodies have already to a great extent adopted it; but if the British Government should adopt the proposed system one other step will become absolutely necessary—namely, to revise all the arithmetic tables at once, and to give to decimal fractions the position from which they have so long and so absurdly been ejected. At present boys look upon decimal fractions as something formidable; when they learn that they form the mere completion of common arithmetic, and are infinitely more simple than vulgar fractions, the task of indoctrinating the mass into the metrical system will be half accomplished.—*Grocer.*

"A VISIT TO EPPS'S COCOA MANUFACTORY.—Through the kindness of Messrs Epps, I recently had an opportunity of seeing the many complicated and varied processes the Cacao bean passes through ere it is sold for public use, and, being both interested and highly pleased with what I saw during my visit to the manufactory, I thought a brief account of the Cacao, and the way it is manufactured by Messrs. Epps, to fit it for a wholesome and nutritious beverage, might be of interest to the readers of *Land and Water*."—See article in *Land and Water*, October 14.

BREAKFAST—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & CO., Homeopathic Chemists, London." Also, makers of Epps's Cacaoine, a thin refreshing beverage for evening use.

MANUFACTURE OF COCOA, CACAINE, AND CHOCOLATE.—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—See article in Part 19 of *Cassell's Household Guide*.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

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TESTIMONIALS.

From WILLIAM TITE, Esq., M.P. for Bath, and Architect of the Royal Exchange, London.

House of Commons, 2nd March, 1864.

DEAR SIR,—In reply to your note, I beg to say that I have used both the sorts of Cement manufactured by your firm, and that of Messrs. Francis and Son; I mean the Cement usually called Roman Cement, or the more recent introduction of Portland Cement. I believe these Cements, manufactured by either of your firms, to be equally good. I know no difference, chemically or practically, between them; and I should use, and authorize to be used indifferently, either one or the other. You are at liberty to use this note, if you think it necessary.—I am, Dear Sir, your obedient servant,
Messrs. White & Son. (Signed) WILLIAM TITE.

From R.O. MINNIE, Esq., Surveyor to Board of Ordnance, London.
War Office, Pall Mall, London, S.W.,
3rd March, 1864.

GENTLEMEN,—In reply to your request, I have much pleasure in stating my favourable opinion of the quality of your Portland and other Cements, which have been extensively used in the Public Works connected with the War Department at home and abroad, especially in several of the fortifications now being erected in this country. On all occasions within my knowledge the quality has been equal to that of any other manufacturer, and has given great satisfaction.—I am, gentlemen, your obedient servant,
(Signed) R. O. MINNIE, Surveyor.

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The Irish Builder.

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Christmas and Art—Pictorial and Industrial.



ONE of the most marvellous developments in the history of the last quarter of a century is the literary, industrial, and artistic enterprise connected with the season of Christmas in Great Britain. The denizens of this poor widowed capital, although they contribute but little to this enterprise, yet the genius and talent of Irishmen in the sister kingdom are exercised to no inconsiderable extent in the several fields of labour, whose triumphs are part and parcel of this great Christmas concentration of literary and artistic workmanship. From the early days of October till the last days of December this bodily and mental activity is rife, and the brains and hands of some thousands of *litterateurs*, artists, and operatives are kept going, each and all working in the same direction, and having similar ends in view.

The Christmas and the New Year festivals, with their various associations, give rise to their labour—a labour fraught with much joy and success, a labour calculated to please millions, but a labour at the same time not always as pleasing or beneficial to the producers as it is to those for whom it has been performed. Christmas literature and Christmas art are often begotten in pain and privation. What affords joy to many often puts another nail in the coffin of the sickly artist who, unknown to the world, works day and night that his work may be painted or engraved in time. The beautiful Christmas volume, with illuminated cover and gilt edges, full of colored engravings, comprising romantic story or surprising adventure, may, as a present, afford unspeakable joy to the young recipient, but who can tell the hours of doubtful misgivings, restless nights, and mental agony often mixed up with its production. In the realm of handicraft, too, we can never know to the extent which privation and unrequited labour have been mixed up in the production of the countless articles in male and female labour from a toy to an inlaid table, or from a lady's lace collar to a lace shawl.

Connected with the preparation of our Christmas pantomimes there is an immensity of literary and artistic labour employed, particularly in London,—labour that gives employment to some thousands of persons, from the highest to the humblest. From the writer of the play or pantomime to the scene painter, from the machinist to the stage carpenter, from the constructor of artificial figures and forms—animal and human—to the maker of artificial flowers and tinsel, from gold-leaf to tinfoil, and in the getting up of a thousand and one things besides, there is a world of industry, intellect, art, and handicraft displayed. Not only those connected with the stage, but many hundreds of outsiders—from children to

grown men—are pressed into service in the preparation and representation of a Christmas pantomime and other Christmas or New Year's entertainments.

In church decoration at Christmas there has often been much taste of late years shown, and this embodies a considerable amount of intellect and art—often, of course, of an amateur kind.

There are numerous forms of male and female labour, trades, and occupations to whom the Christmas times bring a little hope by bringing a little employment. Hammers and hands are more busy with the men, and the fingers and needles of women are plied quicker. Hundreds, no doubt, of the poor are employed at starvation prices for their work at Christmas times as well as at other portions of the year, and many a sickly female could still sing “The Song of the Shirt.”

The world is too occupied to indulge in under-glances at social life and living at Christmas times, for the garish display that meets the eye on all sides, of wealth and fashion, points to enjoyment, if it can be achieved, and not grief, if it can be avoided. Books, magazines, engravings, paintings, models, and articles of amusement and utility are issued, made and manufactured at home, or imported from abroad in shiploads, to supply and administer to the tastes of the multitude, and of course meet a ready market in these islands. Leaving foreign nations out of the competition, London alone is a huge manufactory, or a conglomerate of manufactories, capable and ready to supply the Christmas wants of the inhabitants of the three kingdoms to nearly any extent.

It would be instructive to learn the amount of capital expended in the production of articles of art and workmanship connected with the Christmas and New Year season alone, and it would be equally instructive if the amount of money realized during this season could be estimated. What a vast number of pens must have worked to produce our Christmas literature alone! Then come the artists and engravers in steel and wood, male and female, and the handicraft branches that depend for their living on supplying them the materials, and the others who are engaged in the merely mechanical branches through which these productions reach the public. Let any observer interested in the subject take up a London daily paper, and read the announcements connected with catering for the wants or supposed wants of the Christmas season, and he will marvel at the extent that the season has to do with producing articles of every conceivable kind. Not only in art and literature, but in dry and soft goods, in articles of eating and drinking, and in that of dress, invention and ingenuity are exercised to their utmost in devising and contriving to create a taste and to supply it. London and Paris not only sell but create; Dublin, alas! she remains the buyer and the vendor of nearly all—there is no special Christmas production worth speaking of connected with Dublin trade, either in the realm of art or literature. The tin or wooden Christmas box that the child rattles his halfpence in, and the wretched daub called a Christmas carol—a disgrace to printing and to the name of art—may indeed be manufactured in our city; but from the infant's teething toy to the brass mountings on a Cook-street coffin all are imported, and the

great mass of our manufacturers are but the pedlars of other nation's wares. Our publishers are but mere bookellers and agents of London houses; literary enterprise is emasculated and art is starved and dishonoured by those who should be its best patrons. Some of our so-called literary productions are produced abroad—written across the channel, printed across the channel, and published across the channel,—and the Dublin publisher consents to play second fiddle. Better that their names were altogether erased from the title-page than such a farce should be perpetrated. If a book be written and compiled in Ireland, it ought to be printed in Ireland. Is there one London publisher of respectability who would consent to produce the work of a well-known author in London and issue it with the imprint of “Dublin” on its title-page as a first heading? Would such a proceeding enhance its value?

We said on a former occasion that men here believe that a foreign mint-mark is indispensable to the sale of a work. If a work is a bad one, the imprint of London, Edinburgh, or Paris will not save it from its deserved fate. If it be good, it will depend upon the energy, business habits, and public spirit of its publisher to make it a success. With public spirit and enterprise a Dublin publisher could establish a good trade, but we lack men of public spirit in the publishing trade in this city. If we would re-establish the old publishing trade of Dublin there must be another class of men found than what now carry on the ghost of our former trade. It is vain to look for a Christmas literature or art while there is no ordinary issue of literature or art. We have a daily and weekly press, to be sure, and some of these journals are conducted with much ability, but what have they done or what are they at present doing to encourage the advent or uprise of a native literature amongst us? Our book-shops are full of foreign-printed books and prints; our large drapery establishments are piled with foreign goods; our cabinet warerooms, in many instances, are stocked with London and French chair, sofa, and cabinet work; our ironmongers are full to repletion with Sheffield and Birmingham manufactures; and even the Christmas window decorations of our pork butchers and provision merchants show a charming display of Yorkshire hams, Gloucester cheese, and Ostend rabbits. Italian warehousemen of Irish birth must, of course, exhibit a little of Roman art in decking their window boards, where Cork butter and Belfast bacon are only kept “to oblige customers.” Well, we have reached from art to artifice, and in view of Christmas rejoicings we will bring our remarks to an end. What greater men failed to reform we may also fail to effect. Our path lies not in the way of politics, but in the way that leads to greater triumphs. We desire to make our people realise their position and to look inwards instead of outwards, to look at home instead of always abroad, and see if they cannot do for themselves what other people are making fortunes out of them for doing. Native industry and native art can only spring through native energy and enterprise. We must produce if we should prosper, we must manufacture if we would be wealthy, we must educate if we wish to advance in knowledge and power. Until we, as a people, set about doing these things we will remain a laggard among the nations.

DOCTOR OR ENGINEER—WHICH?— SANITARY INSPECTION.

In the coming great change in the sanitary administration of the British Islands there is a possibility that a great and grievous mistake may be committed—a mistake that it may take a generation or two to repair. A deputation of medical men lately waited upon Mr. Stansfield in view of the interest of their profession in the future sanitary inspection of the cities and towns of these islands. We do not blame the members of the medical profession in endeavouring to widen the field of their practice, nor do we desire to undervalue their utility or ability as medical officers of health. There are many matters which they are fitted to deal with, but there are several other important matters connected with sanitary inspection which even the boldest amongst them would hardly venture to seriously claim to possess the least practical knowledge of. "Every man to his trade" is an old remark, and it would be well if the members of the medical profession would realise the whole truth of this remark. The knowledge that fits a man to pronounce with accuracy on the diagnosis of a certain disease which a delirious patient labours under, is quite different from the knowledge that is required to pronounce on the diagnosis of a foul drain or the construction of a dwelling or a sewer. A medical man can see, and smell, and prescribe—yea, he may cure; yet, from the very fact of his position and training, in nine cases out of ten, he lacks the knowledge required to prevent disease or trace its cause. If the medical man is more than a mere M.D., he may, as a surgeon, be well acquainted with the anatomy of the human body; but his facility in dissecting a subject will avail him little in dissecting a piece of architectural or building construction. A man of common-place observation will be able to tell an unhealthy locality from its surroundings—he may know a house needs better drainage or ventilation; and a medical man may know the same, and perhaps a little more. The effect of an unsanitary dwelling may be discovered at once; but the causes lie far deeper than even the foundation of the house, wherein the fevered patient is prostrated by a deadly contagion. The dwelling suffers not alone through the fault of its ill-construction, but through the sewerage or drainage of the whole neighbourhood or town. The cause of the evils are often manifold, and hinge on the various matters which are the peculiar province of the architect and the engineer, and not the physician. The bad state of the public health may be traced through a variety of sources, in which the labour of many trades and callings are embodied—in sins of omission and commission connected with builders and their workmen, in badly-executed workmanship and inferior material, in the work of bricklayers, carpenters, plumbers, painters, and several others. Of the routine of these trades the medical man cannot possess but very little useful knowledge; of engineering and architectural matters he is innocent; of the details of town-drainage and water-supply he is equally ignorant. In the face of these facts how can it be supposed that the medical practitioner can fill the position that only belongs to the consulting architect or engineer? As well might the architect, engineer, and practical builder try to undertake the dissection of the human body, as the physician to try to give a practical exposition

of the matters we have alluded to. It was not in the nature of things to think that the sanitary inspection of these islands could be handed over to the care of medical men. As ordinary medical officers of health medical men can do useful service; but they never can fulfil the functions of the sanitary engineer; and any attempt on their part to usurp the place of either the practical architect or engineer, must end in signal failure. If the Government of these kingdoms overlook the vital and important matters connected with drainage, sewerage, and water-supply of towns, in their appointments, and fail to put the right men in the right place, the results, at no very distant date, will be disastrous. In the matter of food and drink, a medical man, if he be an analyst as well as an ordinary medical officer of health, will possess an advantage—but our ordinary medical men are not chemists; and in these and other matters, if they are placed in a false position, they will have to call in the aid of other men to help them through their difficulties. The medical profession, through some of their members, have laid great stress on the evil of appointing uneducated men to fill appointments connected with sanitary inspection. Some of our present inspectors of nuisances are not, we are aware, very highly educated, but there are a large number of them who are not deficient in the practical knowledge their position demands; they possess that necessary insight and experience which medical men cannot be expected to possess, and which, in fact, they do not possess. The anxiety of the medical profession respecting sanitary inspection, and their keen desire to keep the strictly medical side of the question before the public view, have not yet had the effect they desired. Mr. Stansfield, who has not a very clear perception of what thorough sanitary administration should be, has allowed himself to be further mystified by the arguments of the doctors who waited upon him, the said doctors themselves being not quite agreed upon their own programme. They evidently know what they want, but as yet they are not certain how they shall obtain it. Our contemporary, the *Lancet*, is wide awake to the situation, and, in the interest of its constituency, it never loses an opportunity of putting in a word where it thinks a word will help on the profession in attaining its great desire. All is fair in war, and we do not blame our contemporary; it is rather to be commended for the interest it displays for its *clientele*. We have not time or space at present to enter more fully into the question; but this much we say, that it behoves the architectural and engineering profession to be on the alert—to move, and not to be merely lookers-on. The field of sanitary science is their field—they created it; its growth is the growth of their labour; and long years before a single medical man opened his mouth, or wrote a sentence in favour of sanitary science or reform, architects and engineers were labouring, publicly and privately, in building up the public health, and saving thousands of God's creatures, by inculcating the laws of prevention instead of the laws of cure.

"THE MASTERS OF THE STREETS."

THE following precious *morceau* is the utterance of one of our civic dignitaries. Speaking of the right of the tramways, Mr. Byrne said—"The tramways had acquired no right in the

public streets, save the liberty to traverse them themselves; the Corporation, fortunately, were still masters of the streets." Unfortunately, indeed, the Corporation are guardians of the streets of Dublin, and we will not rob them of the credit they have acquired in keeping and preserving them in a chronic state of beastly filth. The Town Council of Dublin are something more than "masters of the streets:" it would appear that they are, or assume to be, masters of the pockets of the ratepayers to boot; masters of jobbery; masters of dissimulation; masters of charlatanism; masters of every public vice that can contribute to the degradation of our city; masters, verily, but not servants of the public. The mastery of the Corporation over the streets has made them what they are—impassable almost in the winter, with deep ruts and floating seas of mud. There is no money to cleanse them, because the Town Clerk requires an assistant, and Mr. Morgan, the City Solicitor, a retiring pension, to make room for another corporate worthy or worthies, who have entered the Corporation not to represent the city, but to pave the way to place and pension for themselves and their relatives. There is no money to pave the streets, because there are three or four jobs on hand, the wire-pullers of which carry a sanctimonious face in public, and keep at a distance when there is no absolute necessity for their presence in the Council. There are puppets, however, who dance attendance and vote the supplies, while the upright gentlemen are busy floating bills at Victoria-street, Westminster, or in Dame-street, Dublin. There is no money to assist in the sanitary inspection of Dublin till the huge job anent the gas question is settled, and the dream of the water-sprite is realised. There are no funds for improvements at present, but loans are to be raised for the improvements to be carried out in the twentieth century, when the present tagrag-and-bobtail will have tumbled into the graves of their fathers, leaving a debt upon the city that it will take a couple of generations to wipe out. The masters of the streets are wise in their generation, and individually a good many of them have made good use of their time in the Town Council during the last ten years. The charmed circle that surrounded their little games is, however, converging year by year, and the present year has wonderfully contracted the sphere of their operations. For these and other reasons a couple of desperate attempts are being made to perpetrate infamous jobs, by which the citizens will be further burdened. It matters not, so as the wire-pullers are able to make a haul out of the transaction. In sober earnestness we ask, does any honest citizen believe that three at least out of the schemes floated by members of the Corporation, and which powers are at present sought to carry out, have been devised for the good of the city? In the first instance, a "consideration" is understood for making it a Corporation subject, by which a few nefarious jobbers will be benefited; and in the second instance, the work, if carried out by the Corporation, will make way for needy expectants and unprovided-for relatives and hangers-on. There is not another more infamous chapter in the latter-day history of the Dublin Corporation than that which relates to the nursing of projects and to places and pensions. In the "Law and Parliamentary Expenses" of the borough of Dublin the

public robbery can be traced with a steady eye; and by running over the names of those who are in office under the Corporation, or in offices in departments over which the Corporation have some control, it will be seen at once how patronage has been worked in their behalf.

The Main Drainage project, and that other cognate scheme begotten of it, will afford another inlet for assistants to the borough engineer and other "overworked" officials. The chimney-piece ornaments and ornamental officials at the City Hall are a rare lot—Bogus-directors, intriguing financiers, dabbling with other people's money, exercising the accidental influence that their position affords for the moment, and pocketing the reward that comes through deceiving the citizens of Dublin into paying for speculations that are working the utter ruin of this city. If we pointed out those shameless characters by name, the law would be appealed to to vindicate their injured innocence; but the names of not a few of them are on the tongues of our people, and those who are in ignorance may learn on inquiry of their neighbours. The masters of the streets can wear the mask well, and the most prominent of them can show the double face of a Janus, the political cheek and the religious cheek, and the grinning leer that is the accompaniment of both faces. There is one hope, however—rottenness and corruption work their own extinction; and the rottenness that at present characterises the life of our Town Council has reached its limit. The shell must break soon that encloses the feculent mass, and the masters of the streets will be swept from their places, along with the other nuisances that defile and encumber our city.

UNKNOWN DUBLIN.

BY THE "OLDEST INHABITANT."

Edited by Mark Philip O'Flanagan, T.C.D.

BOOKWORM-STREET.

A WALK down Bookworm-street calls up a flood of recollections, and reminds us of "hard lines" which we experienced in the pursuit of knowledge under difficulties, before the era of penny journals in the Unknown City. Having graduated in the hedge-schools of our country, the chance of obtaining a sizarship in the Alma Mater of the big metropolis looked very blue on our part. We trudged, however, to the capital, like many other boys, to seek our fortune, with an empty stomach and pockets, and minus an introduction to a single soul. Accident led us to turn into Bookworm-street, and it was the turning-point of our young career. Old books and old prints peered at us through dusty windows on each side of the street, and strange characters passed in and out of the shops; old gentlemen with broad-brimmed hats and clerical coats; raw-boned youths with collegian caps, and as seedy in person and as pinched in features as ourselves. Another class of voluble youths, whom we learned afterwards were medical students, we now remember were very numerous on the occasion of our first visit to Bookworm-street. At the date we are referring to nearly every second house was a book store or a print shop, and engravers and printers were sprinkled between. When we went out a few days since to meet our friend the "Oldest Inhabitant," we had nigh forgotten that such a place still existed, and it was only by looking over an old map that we discovered where Bookworm-street was situated.

Our cicerone was punctual to his appointed time, and awaked us from our reverie before the windows of what was in our young days No. 31.

"That was once a noted house, sir," quoth the "Oldest Inhabitant," "and probably the most famous in the street. It was there where Dick Mercer published the famous 'Trifolium Juverna,' a celebrated monthly journal devoted to antiquities, oddities, and eccentricities. One of the most prominent characters that used to frequent that house was the Rev. Ned Ledwick, a very unmanageable critic. I often heard it said that he pretended to be very deeply read, and in striving to puzzle everybody else, mystified himself. The rev. doctor began as a school-master, and ended as churchman and historian. He had a staunch friend and disciple of the name of Bomford, and between them both they kept the society of antiquaries in continual hot water. The greatest stumbling-block in their way was a Col. De-Lancy, who began life abroad as a captain of engineers, but taking to the study of Phœnician remains, came over to Ireland to prosecute his researches. De-Lancy learned Irish from a Munster schoolmaster in Dublin, and he made such progress with the vernacular that he lived to puzzle all the schoolmasters in the kingdom. Between Ledwick and De-Lancy there was for several years war to the knife. Master Tommy Moore and Master Thomas Dermody used to write poetry in the pages of the 'Trifolium Juverna,' and a number of the principals of the classical and English academies in the city and through the provinces were in the habit of propounding mathematical problems in the pages of the magazine. It would take me too long, sir, to tell the whole history. To make a long story short, the antiquarians fell out with each other, and scattered themselves over the kingdom. Dick Mercer, the publisher, who was a Quaker, grew disgusted and got married, became printer to the King's Inns, and gave up the publication.

"Everybody seemed very sorry when the 'Trifolium Juverna' died, for, with all its faults, it was a noble publication; but then, as well as now, sir, people were fond of ordering the journal, but disliked paying for it when their bills were sent in.

"See that shop over the way, sir; that was formerly No. 52, and in that little shop one of our native bibliopoles began business, when I was a mere lad. 'Win gold, and wear it,' is an old saying, and a true one too. James Brophy, like Bianconi, the great car proprietor, began life upon the road as a pedlar or itinerant chapman, and having by hard plodding saved a few pounds, he took yonder little shop and opened bookselling on a small scale. He decked out his windows with copies of 'Valentine and Orson,' 'Venice Preserved,' 'The Battle of Aughrim,' 'The Complete Lady Writer,' and a great number of old chap books, and yards of love-songs, sea-songs, tragedies, and ditties, dating from the days of Dan Homer to Zozimus. Brophy's shop decoration, sir, hit the public taste completely, and after a few short years he was enabled to auction off all his old shop stuff in job lots, to make way for a more ambitious trade. The secret of his success, sir, arose from the fact that he was taken in hand by a new political party called the 'Enthusiasts,' and he was made their publisher. 'The Irish Enthusiasts' Library' made Brophy's fortune, and he lived to die a well-to-do citizen.

"Leonard, the literary auctioneer, lived in that big shop higher up. He did a good trade formerly in knocking down deceased gentlemen's libraries for the benefit of their widows and creditors, as well as for his own benefit. I believe, sir, he did sell off a portion of the Town Major's articles of *vertu*. The Major was very fond of the fine arts, and he had a fine collection of paintings, which, if everybody had been allowed to retain their own, would never have passed into his hands. When Leonard found a library he was called upon to sell was not of sufficient dimensions to create an interest and add to his commission, he used to send to London to the second-hand booksellers for a cargo of 'rare and valuable works.' Many of them were indeed very rare, but their value was ques-

tionable. So long as people's illusions remained undispelled, it mattered not. Bookworms and book-hunters bought often under the belief that the works they purchased belonged to those represented, and they went home content. It would be a pity to disenchant them.

"Opposite Leonard's warehouse, Bernard Fuller, in later times, started a paper in opposition to his master. Bernard was a clerk, a book-keeper, a coal-merchant, and a journalist betimes, but nothing very long. *The Milesian* came out strong, went up into the milky way, like a rocket, and, after spending its force above the heads of the people, sank suddenly into the bed of the Liffey, which it nearly set on fire before it extinguished itself. Bernard was not satisfied that it died a natural death, so he took means to resuscitate the *Milesian*, but the galvanic shock he applied to the corpse killed the ghost of its former self, after a fortnight's travail in the mortal agony of decomposition.

"A door or two below that corner shop lived a good-hearted old soul, who had more faith in his countrymen's generosity than they had in his. Poor Brian MacGeoghegan died of a broken heart, after expending his last penny and impoverishing his family to put a great work into the hands of every class of his countrymen. His shop was a great resort, for a short period, of archaeologists, linguists, journalists, penny-a-liners, and idlers, who occupied the poor bookseller's time in asking him frivolous questions, and leaving his shop after an hour's conversation without buying a copy of the work they were so fond of lavishing praise upon. MacGeoghegan's family, sir, need not thank their father's visitors. After the old man's death the trade went down, and the rats deserted the fallen house.

"Do I know John O'Grady?" "Sir, indeed I do; and we are now within a few steps of his old bookshop. For upwards of thirty years he has walked the flags of this city, a quiet, scholarly, inoffensive, and unpretentious man. Deeply read in the language and literature of his country, he has been the backbone and mainstay of many reputations, which, if his support had been removed, would have utterly collapsed. The warm-hearted old scribe's brain has been preyed upon, like the brain of the elk, by professors and pedants, and little has been the requital, and even now, in the sere and yellow leaf, he is allowed to wither from off the face of the land without one act of public recognition for his labours and services. O'Grady is never happy save when in the midst of his books or pouring over old MSS. in the vernacular. The picking up of an old tome in relation to the literature or antiquities of his country, or the finding of an old Jacobite ballad in Gaelic, gives an infinite delight to O'Grady's heart. Many of O'Grady's best friends are in their silent graves. I followed their remains like himself to their last resting-place, north and south of the city, and I have mourned like him over their irreparable loss."

Here the "Oldest Inhabitant" gave a deep sigh, and feeling that he needed a little refreshment, like myself, we turned our back upon Bookworm-street, and made for Hoggin-green.

BELFAST ARCHITECTURAL ASSOCIATION.

A MEETING of the above society was held at the Museum, on Monday evening, 9th inst. There was a large attendance of members. Mr. Thomas Turner occupied the chair. A very interesting paper was read by Samuel P. Close, A.R.I.A.I., on "Measured Drawings," shewing the advantages to be gained by the measuring up and close study of good examples of ancient architectural work. The paper was illustrated by a large number of admirable drawings. Some of the members present added considerably to the interest of the meeting by discussing various matters connected with the above subject.

"THE QUERIST."

BY GEORGE BERKELEY, BISHOP OF CLOYNE.

(With Notes by "Dublinensis.")

"FIRST PUBLISHED A.D. MDCCXXV."

WHETHER those people who move the corner-stones of a constitution may not pull an old house on their own heads?

Whether there be not two general methods whereby men become sharers in the national stock of wealth or power, industry and inheritance? And whether it would be wise in civil society to lessen that share which is allotted to merit and industry? [It would be a most unwise thing of course to place any impediment whatever in the way of industrial enterprise. Every man that encourages industry not only helps his countrymen but enriches his country.]

Whether all ways of spending a fortune be of equal benefit to the public, and what sort of men are aptest to run into an improper expense. [Those classes of men who inherit the fruits of other men's industry, and who never experienced the trouble of doing a day's work.]

If the revenues allotted for the encouragement of religion and learning were made hereditary in the hands of a dozen lay lords and as many overgrown commoners, whether the public would be much better of it?

Whether the church's patrimony be to one tribe alone, and whether every man's son, brother, or himself may not, if he please, be qualified to share therein?

What is there in the clergy to create a jealousy in the public, or what would the public lose by it if every squire in the land wore a black coat, said his prayers, and was obliged to reside. [It is immaterial whether the squire wears a white or black coat; but if he was obliged to reside at least two-thirds of the year at home, his devotion to religion and country would soon show itself in a marked manner.]

Whether there be anything perfect under the sun? And whether it be not with the world as with a particular state, and with a state or body politic as with the human body, which lives and moves under various indispositions, perfect health being seldom or never to be found?

Whether nevertheless men should not aim at perfection? And therefore whether any wise and good man would be against applying remedies, but whether it is not natural to wish for a benevolent physician?

Whether the public happiness be not proposed by the legislature, and whether such happiness doth not contain that of the individuals?

Whether, therefore a legislation should be content with a vulgar share of knowledge? Whether he should not be a person of reflection and thought who hath made it his study to understand the true nature and interest of mankind, how to guide men's humours and passions, how to incite their active powers, how to make their several talents co-operate to the mutual benefit of each and the general good of the whole? [No doubt the prime object of government ought to be to secure the greatest happiness for the greatest number, but vulgar demagogues who usurp the functions of local legislatures act on the invariable principle of inciting men's passions. Destitute of practical thought themselves, their object is to drag down men's minds to their own level, consequently individuals are benefited, and all cohesion for the public good is destroyed or prevented.]

Whether it doth not follow that above all things a gentleman's care should be to keep his own faculties sound and entire?

Whether the natural phlegm of this island needs any additional stupifier?

Whether all spirituous liquors are not in truth opiates?

Whether men of business are not generally very grave at fifty? [A great many are dropping into their graves at fifty because they have marched too fast towards it before twenty.]

Whether all men have not faculties of mind or body which may be employed for the public benefit?

Whether the main point be not to multiply and employ our people?

Whether hearty food and warm clothing would not enable and encourage the lower sort to labour? [Hearty and wholesome food and a little warm clothing is what our labouring people need, but their earnings will not afford either, consequently their labour is not as valuable as it might be. A day's labour cannot be performed by an ill-fed, ill-clad, and ill-housed labourer.]

Whether in such a soil as ours, if there was industry there could be want? [Not unless under the most exceptional circumstances.]

Whether the way to make men industrious be not to let them taste the fruits of their industry? And whether the labouring ox should be muzzled? [No better way exists than to give a man who is willing to work the opportunity of tasting the fruits of his own industry. Those who will not work through radical laziness should be compelled to work for the privilege of being allowed to live.]

Whether our landlords are to be told that industry and numbers would raise the value of their lands, or that one acre about the tholsel is worth ten thousand acres in Connaught? [The landlords have often been told what industry and cultivation would do to enhance their lands, but the owners of land near to the tholsel or town hall, or within a half an hour's drive of it, are just as indolent or heedless as those in Connaught. Acres of land near to where the old Dublin tholsel stood is encumbered with house property, a disgrace to the owners and to the city, and instead of being increasing in value it is decreasing every year.]

Whether our old native Irish are not the most indolent and supine people in Christendom? [We question very much if there is not a large majority of their descendants open to the same accusation.]

Whether they are yet civilized, and whether their habitations and furniture are not more sordid than those of the savage Americans (aborigines)? [The niggardly conduct of those who should have been the guides and guardians of the labouring poor are accountable to a great extent for the deplorable state of the homes of the people in these countries. Civilization—i.e., education—does not grow up like a mushroom in the fields.]

Whether it be not a sad circumstance to live among lazy beggars? And whether, on the other hand, it would be delightful to live in a country swarming like China with busy people?

Whether we should not cast about, by all manner of means, to excite industry, and remove whatever hinders it? And whether every one should not lend a helping hand?

Whether vanity itself should not be engaged in this good work? And whether it is not to be wished that the finding of employment for themselves and others were a fashionable distinction among the ladies? [Would that it were. Although the exercise of vanity helps industry, it is an unwholesome trait in the character of our ladies. Far better would it be if they shewed the good example of working for and teaching the ignorant how to work, and visiting the poor. The purchase of costly dresses and ornaments of course helps trade, but what incalculable benefits our well-to-do ladies might confer on the future of Irish society if they went a little more among the poor, and encouraged them to help themselves. Costly dresses might still be worn, and my lady Arabella would not lose caste or demean herself either in the sight of God, angels, or honest men.]

Whether idleness be the mother or the daughter of spleen?

Whether it may not be worth while to publish the conversation of Ichomachus and his wife in Xenophon for the use of our ladies? [It would not be out of place.]

Whether the natural inducements to sloth

are not greater in the Mogul's country than in Ireland; and yet whether in that suffocating and dispiriting climate the Banyans are not all—men, women, and children—constantly employed?

Whether it be not true that the great Mogul's subjects might undersell us even in our own markets, and clothe our people with their stuffs and calicoes, if they were imported duty free?

Whether there can be a greater reproach on the leading men and the patriots of a country than that the people should want employment? And whether methods may not be found to employ even the lame and the blind, the dumb and the deaf and the maimed, in some or other branch of our manufactures? [It is indeed a reproach to a civilized state that any of its subjects should want employment. The lame, blind, dumb, and deaf are now partially employed, and George Berkeley's wishes are fulfilled to some extent.]

Whether much may not be expected from a biennial consultation of so many wise men about the public good? [Yes, an annual, biennial, or triennial consultation or conference in Ireland would do much public good if wise men would attend and shallow men hold their tongues.]

Whether a tax upon dirt would not be one way of encouraging industry? [If the Government would clap a tax upon the dirt of Dublin, the industry of its local rulers would no doubt be developed in one direction.]

Whether it would be a great hardship if every parish were obliged to find work for their poor? [Where it is possible it should be done.]

Whether children especially should not be inured to labour betimes? [When able, children should be taught how to labour at some occupation or other, no matter what their prospects may be.]

Whether there should not be erected in each province an hospital for orphans and foundlings, at the expense of old bachelors? [Yes, by all means, wherever it was proved they contributed to increase the number of the inmates.]

Whether if be true that in the Dutch work-houses things are so managed that a child four years old may earn its own livelihood?

What a folly is it to build fine houses or establish lucrative posts and large incomes under the notion of providing for the poor?

Whether the poor grown up and in health need any other provision but their own industry under public inspection?

Whether the poor tax in England hath lessened or increased the number of the poor? [Unfortunately the poor tax and the poorhouses, or workhouses, as they are inaptly termed, have increased the number of the poor all over Great Britain, both of the deserving and the undeserving kind.]

Whether workhouses should not be made at the least expense, with clay floors and walls of rough stone, without plastering, ceiling, or glazing? [No; the young who are unable to work, and the old who are past working, should be housed properly. Even in building prisons, we should not build them to kill off thieves by their openness or dampness. Better to keep the vagabonds alive, and get the worth of our money out of them. Able-bodied paupers, too, should be made to work as much at least as would pay for their own support; but no surplus work of paupers should be allowed to compete in the market with the goods of the legitimate trader, who has to contribute to the support of these poor.]

Whether it be an impossible attempt to set our people at work, or whether industry be a habit which, like other habits, may by time and skill be introduced among any people?

Whether all manner of means should not be employed to possess the nation in general with an aversion and contempt for idleness and all idle folk? [Yes, all idle folk ought to be looked upon with aversion and suspicion. If they are not independent of labour, they are living on the industry of others.]

Whether it would be a hardship on people

destitute of all things if the public furnished them with necessaries which they should be obliged to earn by their labour? [Unless in absolute want through forced idleness, alms should not be bestowed. Supplying the wants of the able-bodied demoralises the spirit of the people. Work alone can make a man manly, healthy, and independent, supposing he is free of the common vices that ruin and degrade mankind.]

Whether other nations have not found great benefit from the use of slaves in repairing high roads, making rivers navigable, draining bogs, erecting public buildings, bridges, and manufactures?

Whether temporary servitude would not be the best cure for idleness and beggary? [Penal servitude would be the just cure for all lusty and idle beggars who are not afflicted with a bodily or mental infirmity.]

Whether the public hath a right to employ those who can not or will not find employment for themselves? [Those who cannot find employment and who are willing and able to perform it, are to be pitied. Those who will not find employment, from a dislike to work for their living, should be deprived of their public liberty for a term of months, and compelled to work at a very unremunerative description of labour. This might brighten their wits as well as sharpen their appetites and hasten their freedom.]

Whether all sturdy beggars should not be seized and made slaves to the public for a certain term of years? [If sturdy beggars were not relieved, they would have either to turn thieves or honestly work for their living. If the public withheld relief in the first instance, the law might be able to cope with the second. Men and women are not born beggars and thieves; it is society that must be credited by a pernicious system in creating them. The sturdy beggar who does not care to work will not care to steal, if he gets the chance. We have every sympathy for the maimed and the afflicted, but none for sturdy beggars and idlers. Ireland for some two or three hundred years has been scandalized, and she is still scandalized by her number of sturdy beggars. Our rulers, nobility, and gentry are, however, not blameless.]

(To be continued.)

CURRENT LITERATURE.

THE MAGAZINES.

Blackwood is a capital number this month, and contains an admirable criticism on Goethe as a poet. Mr. Black's "Strange Adventures of a Phaeton" is continued, and is full of interest. "A True Reformer" proceeds, and improves. A number of notices of new books are given, including "The Life and Labours of Mr. Brassey," "The Life of Sir Henry Lawrence," "Memorials of a Quiet Life," Tennyson's new poem "Gareth and Lynette." There is also an estimate drawn of "Middlemarch" as a work of literary art. This month's issue is one of the best that has appeared for some time.

Fraser is excellent, and deals with the subject of English colonial policy in a searching manner, dealing some hard knocks to the Government. "Six Weeks in North and South Tyrol," by Mr. William Longman, is interesting. Mr. Robert Rawlinson, C.E., contributes a very useful paper on "Domestic Sanitary Arrangements." This paper was recently read in public.

Cornhill is varied in matter. "The Scientific Gentleman" and Mr. Simcox's paper on "The Senators of Treves" are good. The editor's story, "Old Kensington," moves a pace, and is interesting. "Coincidences and Superstitions" is bright and instructive reading, and contains something fresh. A paper on "Dogs" whom the writer has known affords pleasant reading.

London Society for this month is up to the mark. Mr. Cook contributes a well-written paper on "Victor Hugo as a French Novelist," and the Rev. F. Arnold dilates on "The Romance of Medicine" in a very agreeable

manner. "The Milkwoman," by Mr. Greenwood, is a good picture of that character in her moods and teases. Mr. Percival Graves contributes another bit of Irish poesy, short and perhaps sweet. Here it is—

"IRISH EYES."

"Irish eyes! Irish eyes!
Eyes that most of all can move me—
From my book
Lift the look
Through your lashes dark and prove me,
In my worship, O how wise!
"Other orbs, be content,
In your honour not dispraisal,
Most I prize
Irish eyes,
Since were not your ebon, hazel,
Sapphire all to light them, lent?
"So no mischief, merry eyes!
Stars of thought no jealous fancies
Can I err
To prefer
This sweet union of your glances
Sparkling, dardling Irish eyes?"

The *Gentleman's* is up to the average. "Life in London," "Stranger than Fiction," "The Order of the Garter," are good papers. Mr. Mackenna's "Love or Money" is amusing, but a little drawn out. Mr. Joaquin Miller's "Isles of the Amazons" is continued, the poetry of which is full of thought, and expressed betimes in striking veins.

Dark Blue contains "A Sand Quarry in Winter," by the Rev. J. G. Wood, a writer whose well-known contributions on natural history prove him to know his subject. "The Marriage of Father Christmas and Sweet Christianity" is a very commendable paper from the pen of Mrs. Amelia Lewis. Mr. Peel gives us a paper on "Great Principles of Punishment," worthy of the attention of social reformers. "Henry Irving and the Rise of the National Drama" is worthy of careful perusal, as it gives some insight into the present position of dramatic art in England. We have ourselves already in this journal touched upon this vexed subject, and pointed out some of the abuses of the British stage. Dramatic art at present is in a very cloudy position, and the stage is disgraced by contemptible mummers and mountebanks. The opening story of this month's issue relates to Gustavus III. of Sweden, and it opens well.

Temple Bar contains the new story of Mr. Wilkie Collins, "The New Magdalen," which promises to be somewhat of a sensational order of story. "Talleyrand" is a historical portrait of that famous Frenchman. The picture, if overdrawn, is at all events forcible, striking, and well written. "Reminiscences of the American Bar" is pleasant reading, though we think not particularly fresh.

St. James's has the first instalment of a new tale entitled "The Two Brothers," from the pen of MM. Erckmann-Chatrian. We will doubtless have some new phases of social life in this story painted in no dim colours. "The Nosegay of Translations" is continued in this month's number, although the gifted author, Sir John Bowring, has been laid in his grave since the former issue. "The Cravens of Cravenscroft," the serial tale of this magazine, grows three more chapters towards its conclusion. The story possesses much power, and must be fascinating to novel-readers. "The San Juan Award," by the editor, enters into the late American difficulty, and deals some hard thrusts to the Gladstone ministry.

The *Argosy* of December brings the editor's story to its conclusion. Mrs. Henry Wood will commence a new story in the January number, and Johnny Ludlow will contribute in the same issue "Our First Term at Oxford." Among the articles of interest in the present number are Miss Julia Kavanagh's account of "The Miller of Manneville," and "The Burgomaster's Guest."

The *Victoria* has a couple of good papers: "Women's Work," a poem, by the late Sir John Bowring; and "Insurance for Labourers," by the Rev. J. Y. Stratton. The latter paper is worth perusal.

Colburn's New Monthly contains "Allegories of the Months," "Traditions of 'Ninety-Eight," "Stray Thoughts and Short Essays,"

"The Attitude of the People to Social Reform." Some of these papers are good. The editor's story proceeds, full of romance and invested with ample interest.

Belgravia has a few good papers. Among them are Mr. Sala's "Imaginary London," "Opening Meet." Mr. Henry Lake makes an attempt in a paper to prove that electricity is life, and the soul the universe. How he succeeds our readers had better ascertain for themselves.

The *Transatlantic* gives us "Tales of an Emigrant Ship," by the editor; and Captain Read contributes "Incidents of the American Rebellion." "The Political Campaign of 1872" is from the *North American Review*. The *Transatlantic* papers are well written.

The *Dublin University*.—The papers on the "Lord Chancellors of Ireland" are continued this month, the legal career of Abraham Brewster being dealt with in an impartial and discriminating manner. The papers on the chancellors, when finished, will make a useful volume. "The Belle of Belgravia" and "The Philosophers" are very good stories.

Macmillan has some very good papers. Professor Ramsay treats us to an instructive and readable article on "The River Po." "A Slip in the Ferns" is a rather humorous and dashy sketch. Mr. Hutton deals with the poet "Tennyson," and the ethical principles of his poetry, and their influence in the moulding of his muse. The Dean of Westminster contributes a poem on "Advent."

Tinsley is a capital number this month. "A Pair of Blue Eyes" is well written, and full of interest as a story; so is "London's Heart." There are two or three other papers worthy of notice: "Home, Sweet Home," "Truth and Fable," and "A Fairy Prince." The remainder of the papers are fair contributions, and, as a whole, the magazine is a good Christmas number.

The *Fortnightly Review* has a logical and practical paper by Mr. F. Stephens on "Codification in India and England." Mr. Swinburne supplies an attractive piece of criticism on Nichol's "Hannibal." Rousseau's work, "The New Heloise," is subjected to a critical discussion, and is handled so as to afford an entertaining and readable paper. "The Nationalisation of the Land" presents us with Mr. Fawcett's views on what some will call a project for land confiscation; but as politicians may differ, the paper will have its value at least for a large number of people. It is a vexed question, and it is likely yet to cause some trouble in these kingdoms.

The *Et-Cetera* for this month has some excellent papers. The story of the celebrated "Beatrice Cenci" will always command an interest, and this paper will afford it. "The Last Victory of Imperial Rome" is a well-written and forcible poem, with some blemishes. The opening story, "Mortification," will command readers, and as this new magazine offers well, we hope it will command success.

THE WICKLOW COPPER MINE COMPANY.

In the report of this company it is stated that the management was defective in every department, and we also learn that the books of the company are in a most unsatisfactory state. The auditors had long remonstrated against the loose system in which accounts were kept, and books were withheld from them which would have shown that for several years the ores had been over-valued. The mines had been ineffectually worked, and contracts had been most injudiciously made, the loss on one amounting to £1,500. The committee disapproved of the purchase of the Arklow Chemical Works, and left it to the meeting to say whether their enquiry should be carried further. The meeting was adjourned for a month, to enable the directors to offer explanations. This state of affairs tells very badly for the interest of Irish mining; but we trust it is an exceptional instance of very bad management.

A PASSING WORD WITH THE PASSING YEAR.

WITH this issue of the IRISH BUILDER the Fourteenth Volume of this journal is complete, the first number having been published on the 1st January, 1859. There are but few who are aware of the difficulties of conducting a professional periodical in Ireland representing the interests which this journal claims to represent, and which, it is hoped, with some credit to its constituency. We have endeavoured to act in an impartial manner in all matters calling for public criticism, and have never played into the hands of one party to the injury of another. We have never been slow to expose a public abuse, whether it had its inception in a public board or in the ranks of the profession; and, on the other hand, wherever and whenever we discovered a germ of good, we have never failed to bring it before the public, and give it that degree of encouragement to which it was fairly entitled. We have secured by our advocacy many friends and supporters, and doubtless we have made some foes, for who can conduct a journal that will please everybody? A professional journal in these days should be more than a mere class publication, if it would succeed; and, without neglecting the interests of our particular constituency, we have aimed at making this journal interesting by appealing to a much wider class of readers than its title would imply. By acting thus we believe we have acted with judgment and with the best intentions, and we do not regret our course. In our New Year's issue we shall have occasion for a further say with our readers on the past and as to the future, and in the interim we wish to all our readers and supporters A Merry Christmas and a Happy New Year.

THE GAS QUESTION.

IN speaking on this matter in a former issue, we stated that the management of the gas supply of a city would not be out of place in the hands of its corporate authorities, but we specially pointed out at the same time why the Corporation of Dublin were unfitted to undertake the management of our gas supply. No sane man has the least doubt that a job is about being perpetrated, and that individuals and not the citizens are to be benefited. It is perfect madness to suppose that the Corporation of Dublin can benefit this city by the purchase of the rights of the Gas Company. By what sublime system of calculation are the ratepayers of Dublin to get cheaper gas, and by what method do the Corporation propose to pay for the works and the interest? Not only is the plant to be purchased, but a lot of pensioners are to be provided for, in salaries varying from £1,000 down to £100—managers, directors, secretaries, &c. The money to do this is not in the exchequer of the Corporation, and, no matter how it is to be raised, by loan or mortgage, the present and future ratepayers will have to bear additional burdens to liquidate the debt. At the present moment the Corporation are about adding to the number of their own pensioners by allowing one or more to retire. We are not aware at present, but possibly we may in a few days, how many members of the Dublin Corporation are now, or have been recently, directors or shareholders in the Alliance Gas Company, or how many of them have sold or transferred their shares. It is important to know this—more important

than people may think. If the Corporation of this city were like any other Corporation in England, who have taken the gas-supply into their hands, free of debt, we would have no serious objection to raise. Here, however, the citizens stand face to face with a Corporation who are a disgrace to Great Britain, and who have dragged down and degraded our city by the meanest and most shameful artifices, to cover their incapacity and neglect. With a taxation of 10s. in the pound, the city is in filth and decay, and a prey at any moment to a raging epidemic. The people are taxed beyond endurance for the improvement of the city, yet the city is yearly sinking lower and lower, through wilful civic neglect. In the midst of all this, job after job is hatched, to tide over a financial difficulty on the one hand, and earn the wages of betrayal on the other.

We are glad to see that the question of buying up the right of the Gas Company has awakened an interest, and that several of our citizens have spoken out through the medium of the daily press. *Saunders's News-Letter* is entitled to commendation for opening its columns to the ventilation of this important question, and otherwise directing its attention to the subject. The proposed price to be paid by the Corporation is something outrageous; and we deliberately say that the whole surroundings of the scheme, and the scheme itself, is not only a mockery, a delusion, and a snare, but it cloaks, in the opinion of many, a gigantic corporate swindle. More anon.

"BUILT TO SELL."

One foot in thickness from footings to flashings,
With mortar composed of primitive mud;
Walls kept together while building with lashings,
And guy ropes tightened with skewers of wood.

Up with the carcass and down with the scaffold;
Plaster and paint fast, and varnish the shell.
Flats will be born for bargains, and baffled,
And houses, like other things,—“Built to Sell!”

Q.

HOLLY AND IVY.

BETWEEN this date and Christmas—more particularly for a few days before the great festival—there will be a demand for evergreens, among which the immemorial holly and ivy and the mistletoe will occupy a conspicuous place. In churches on altars and galleries, and in warehouses and domestic dwellings, as well as in shop windows, a supply will be needed for the purpose of decoration. Many a poor creature—men, women or children—will find temporary employment in supplying the wants of our shopkeepers and householders. It would be well if a spirit of sympathy and generosity was shown by some of our landed proprietors about the vicinity of our city in gratuitously distributing a lot of cuttings among the unemployed poor, so that a little may be earned in helping them to tide over the Christmas. Many of the labouring population of the County of Dublin have been in the habit for years of bringing a small stock of holly and ivy into the city at Christmas time for sale. Their stock has been collected from a variety of sources: sometimes they have had to beg it from place to place, and at other times they have had to run danger of trespass in acquiring it. Now there are many woods, shrubberies, and plantations in the neighbourhood of Dublin full to repletion with holly, and their owners would

not miss a portion. To those out of employment, or but casually employed, a distribution of evergreens would be a boon, as it would enable them, by its sale, to earn a few shillings. We feel we are not stepping, in this instance, out of the way in asking our landed gentry to help the cause of the unemployed poor. Christmas brings its many joys and its many wants, and the most humble and lowly look hopefully towards the Christmas festival in the belief that it always brings a blessing in the shape of assistance. Apart, who is not pleased to hear in our streets on Christmas eve the immemorial and pleasant cry of “Holly and Ivy.”

BOOKS RECEIVED.

A Treatise on Waterworks for the Supply of Cities and Towns. By Samuel Hughes, F.G.S., Civil Engineer. London: Lockwood and Co., Stationers' Hall-court.

THIS is a new and revised edition of the late Mr. Samuel Hughes' valuable work. The public and the profession are not a little indebted to the labours of the author in his peculiar province as well as in other cognate branches. In the preface to this revised edition Mr. Arthur Silverthorne, C.E., bears testimony that the revision was completed a few days previous to the fatal illness of the author of the work. We do not at present know of one work of its size which affords a more clear or comprehensive insight into the subject on which it treats. On its first appearance several years ago as one of the volumes in Weale's celebrated “Rudimentary Series,” it attracted notice and secured a large number of readers. In its present shape, and with the additions which science and experience have added to the history of waterworks in all its branches, the book must necessarily command a wider circle of readers. There is nothing omitted of importance. The various modes adopted for collecting supplies of water, the ancient mode of obtaining water from wells, and the several appliances used both by the ancients and moderns, are here described clearly and satisfactorily. We are furnished with an account of all kinds of springs, chalk wells, intermittent springs, artesian wells, their cost of construction in boring and sinking, the modes adopted, and the machinery requisite. Then we have an account of the different strata, and the description of water peculiar to each,—the lower greensand, the Jurassic or oolitic series, the oolitic district, the coral rag, Oxford clay, inferior oolite and lias, the Trias and Permian gravels, and divers other formations, above which or under which a supply of water may be had for the supply of towns, cities, or other smaller areas.

The geological portion of the book will afford much information to architects and builders as well as engineers, who are supposed to know more about the subject. In dealing with the different strata—clay, stone, gravel, sand, oolite, sandstone, and the various freestones and marbles in connection with the water supply or water-sheds of the country—the author affords at the same time much information as to the character and qualities of the several building stones. We have also an account of several celebrated wells in London and its vicinity, as well as elsewhere in the provinces; the volume of rivers, dimensions of embankments, home and foreign waterworks, impounding reservoirs, service reservoirs, filter beds, depository reservoirs. There is scarcely aught connected with waterworks but is treated, from the sinking and lining of simple wells to the construction of artificial canals and aqueducts. Much valuable information is afforded on the methods of gauging the discharge of rivers and streams, and in the collection and storage of water. In the appendix of the work tables are given of the horse-power required to raise from

50,000 to 10,000,000 gallons one foot high in twenty-four hours, and tables shewing the power of Cornish engines with various-sized cylinders; also tables of the yield of chalk wells, and a list of chalk springs.

In these days of main drainage and water supply, this book will be found by many a youthful practitioner, and even old ones, a handy, useful, and valuable book of reference on the important question of waterworks in general, and all its surroundings. We may have occasion to refer to this work again at an early date.

We have to acknowledge the receipt of "A Treatise on the Ornamental Stones of Great Britain and Foreign Countries," by Edward Hull, M.A., F.R.S., Director of the Geological Survey of Ireland, &c. It would not be possible to review satisfactorily in the present issue of our journal this latest work from the pen of Professor Hull. A notice will appear in our opening number of new year.

THE PROPOSED NEW STREET.

ON Monday the Corporation took the first step towards carrying out a long-contemplated improvement—we (*Saunders*) refer to the opening of a new thoroughfare from Dame-street to Christ Church Cathedral. The accomplishment of this work will not only add to the beauty of the city, but will be a vast public convenience. Cabs and drays will no longer need to be dragged slowly and painfully up the steep incline of Cork-hill, varying from 1 in 12 to 1 in 20, but will have a broad roadway, with an incline of only 1 in 41½ the whole distance from Dame-street, to the cathedral. The Hibernian Bank will be left untouched, but the new street will pass through the establishment of the Messrs. Sibthorpe, and, with the exception of their premises, the house property which it will be necessary to remove is of comparatively little value. The estimated cost of the work is £22,000, and the money will be borrowed by the Corporation and secured on the rental of the frontage. The street will give a frontage of 1,000 ft, and it is reasonable to assume that houses and shops of a good description will be built in so favourable a situation, producing a rental sufficient to pay the interest on the borrowed money and to allow of the formation of a sinking fund to redeem the capital. We believe that several private citizens have already generously subscribed a considerable sum towards the construction of the new street, for which an Act of Parliament was obtained so far back as 1837!!

NOTES FROM CORK.

The works of the Passage Railway are rapidly drawing to completion, and trains, it is expected, will run over the new line on the first of the new year. Both the engineering and building works have been carried out in a very superior manner, reflecting the greatest credit on the contractor, Mr. Joshua Hargrave; the superintending engineer, Mr. P. Roddy; and the engineer-in-chief and architect, Sir John Benson.

Extensive works have been in progress during the present year at the Lady's Well Brewery, for the Messrs. J. J. Murphy and Co., the eminent and extensive brewers, embracing additional coppers and coolers, with the buildings for same; and a chimney on a large scale, being the largest structure of the kind in Ireland. The height is 222 ft., with an internal diameter of 7 ft. throughout, built in two separate rings and lined with fire-brick for a height of about 100 ft. The proportion of the octagonal shaft and its cornice is very good, and the structure is a striking feature, and is seen many miles from the city. The same firm are now engaged in erecting an extensive store on a plot of ground obtained by covering over two branches of the Blackpool River which pass through their premises. This was accomplished by arching with con-

crete—the first employment of this material on so extensive a scale in the south, the clear span in some cases being 30 ft. The experiment has proved a perfect success. The contractor for the foregoing works is Mr. Richard Evans, of Union-quay.

A new billiard-room and extensive conservatory is at present being erected, and a complete system of warming by hot water carried out, at Fota House, the residence of A. H. Smith-Barry, Esq., M.P., from the designs of Sir John Benson, architect. Contractor for the building works, Mr. R. Evans, of Cork; and for the heating, Messrs. Richd. Perrott and Sons, of the Hive Ironworks.

The enlargement of St. Patrick's Catholic Church, Cork, is being proceeded with by Mr. Barry M'Mullen, builder, from the designs of Sir John Benson.

The erection of a convent for the Augustinian community has been commenced in Great George's-street, under a clerk of works, Mr. Delaney. Architect, Mr. George C. Ashlin, Dublin.

CIVIC LYRICS.—No. XXVII.

LOCAL PATRIOTS.

True patriots we, be it understood,
We rob the city for the city's good.—*Anonymous.*

Brick is an independent man,
So is his father's brother,
Both have an independent plan
For serving one another.
Brick has a son a great scapegrace,
And these are the consequences—
The younger Brick he gets a place,
The city pays the expenses.

Bolus is a spirited man,
Who deals in flesh and chattels,
Does for the public what he can
In fighting all their battles.
Bolus has got a hopeful son,
And these are the consequences—
He's sent to Committee No. 1,
The city pays the expenses.

Potheon is a vigilant man,
He deals in butts and barrels,
Keeps an eye to the frying pan,
While fanning party quarrels.
But Potheon has some needy kin,
And these are the consequences—
One or two to office creep in,
The city pays the expenses.

Briefless is a wide-awake man,
Burdened with legal knowledge,
As Senior Wrangler he began
His studies outside the College.
Briefless swears he never will swerve,
And these are the consequences—
Himself he's now allowed to serve,
The city pays the expenses.

We've left untouched some other men,
Like Grab, Blackmail, and Hooker,
Quick at helping a project when
It means some "filthy lucre."
Folk like those have nothing to lose,
And these are the consequences—
They stand in other people's shoes,
The city pays the expenses.

CIVIS.

THE BELLS OF ST. GEORGE'S.

WE are glad to hear that an effort is making by a number of the parishioners of St. George's whereby the noble gift of the late Francis Johnston will be exercised in the manner that the generous donor desired. The fine peal of bells which were presented by our munificent native architect in 1828, and which cost upwards of £1,300, have for several years swung in silence. We believe that in the bequest of the architect a certain sum of money was left to pay for the ringing of the bells also. What this sum amounted to, we forget at this moment. Can it be possible, even if this money was not in the shape of a continued annuity, that the services of the architect would be forgotten as soon as this sum was expended? We cannot account for the neglect of the ministers, churchwardens, and parishioners of St. George's. It is proposed now that these bells will be once more

used as formerly, and that they shall be rung on a certain number of days throughout the year, beginning on New Year's Day. We hope to see the movement successfully carried out.

Not only is the Parish of St. George indebted to Francis Johnston, but the city of Dublin and its architecture and art are indebted to him for the encouragement he gave to them by founding the Royal Hibernian Academy. We have had occasion in this journal more than once to direct attention to the claims of Francis Johnston on our countrymen, and particularly on our citizens, as well as upon the members of his own profession. We may shortly have something more to add to our former and present remarks. In the meantime we anxiously await the result of the effort now being made to wipe out a neglect that should never have existed.

DRAINAGE WORKS.

WE learn that a large number of men are at present employed on the Baltracree River Works, Co. Kildare. From the very satisfactory way the contractor is dealing with his men, he is able to secure as many as he can employ with advantage. The principal landed proprietors are affording every facility to have the work pushed on. Mr. James Dillon, C.E., having inspected the works last week, expressed his satisfaction with all that he had noticed. This is so far satisfactory, as it was at one time rumoured that scarcity of labour would injuriously affect the progress of works of this nature.

QUEEN'S COUNTY PRESENTMENT SESSIONS.

IN the matter of a presentment for the building of a bridge on the site of the swivel bridge between Portarlinton and the railway station, it was resolved—"That, having unanimously refused to make any presentment for the canal bridge at Portarlinton, we request the grand jury to take legal measures to compel the Grand Canal Company to make the bridge and its approaches safe, which are at present in a most dangerous state."

SANITARY STATE OF MOUNTRATH.

MR. GOODBODY, clerk of the Mountmellick Union, reports as follows to the guardians:—

"Gentlemen,—In compliance with your instructions I went to Mountrath on Tuesday last, and inspected 'Dirty-lane.' I found it inhabited by a set of wretched-looking creatures, and in a most disgraceful state of filth, several of the houses being unprovided with any place in which to keep their manure or offal.

"What I would advise is, for the relieving officer for the present to visit the place at least once a week, and insist on the occupiers keeping it swept and the manure removed; and next spring, when the days get long and the weather fair, the entire lane should be raised in the centre, coated with proper stones, and a surface channel at each side to convey away the rain water, which at present lies in stagnant pools. These pools overflow and run into a stagnant reservoir in a field of Mr. Roe's adjoining called Oxpark. If this reservoir were kept cleaned out, say once a year, I think there would be no necessity to sink a tank, as suggested last board day.

"It would cost about £40 to put the lane in decent order; and if a tank were made, or a sewer leading to a stream at some distance (which would be very objectionable), it would cost at least double that sum, and would require a rate of 4d. in the £1 on the Mountrath division to defray the expenses, as I fear very little could be received from either the owners or occupiers of the lane. I observed, when in Mountrath, that there was no public pump in the town, which, in my opinion, would require at least four to give the inhabitants a proper supply of water."

Mr. Thomas Wright received instructions to draw up plans and specifications of the proposed work, with an estimate of the probable cost.

THE BELFAST ARCHITECTURAL COMPETITION.

In relation to the above competition we have received a communication from Messrs. Young and Mackenzie, which we willingly give insertion to. Their letter, however, fails to satisfy us that their plans were admissible, without some further information. We would not willingly do an injury to Messrs. Young and Mackenzie; but looking on the broad facts, if facts they are, stated by the gentlemen composing the deputation who waited upon the Board of Guardians, and on the statements made by another gentleman in a Belfast paper, we cannot admit that we have drawn our conclusion from an *ex parte* statement. We adhere to our remarks as far as they relate to the conduct of the Board of Guardians in the matter, and we consider their refusal to accede to have the matter submitted to the body of architects in Dublin, or to a number of local architects in Belfast, goes a good way to prove that they feared the issue.

We do not admit that there should be no appeal from the decisions of committees of public bodies, when it is proven that they have broken faith with the public. The chairman of the Board of Guardians is reported to have said, that it was not customary for public bodies to accede to requests to have questions of the nature involved submitted to parties outside, after a selection was made. If we admit this sort of logic, it would cut at the root of all fair dealing, for a public board would have it in its power to act as it choose. A favourite might be selected at any moment; and, knowing something of the constitution of these boards, and of the committees generally appointed by them, we confess we have but small faith in their decisions. A numerical majority can always be secured for a local favourite where men are mean enough to sacrifice principle to public rectitude. There is no protection for competing architects where a breach of conditions is permitted. All competitors should be allowed to stand or fall by their first designs, and all plans should get a careful examination.

In this instance the School Committee, we understand, was appointed to decide on the plans; and because the School Committee was not expeditious enough, the Committee of the Guardians would not wait, but decided with a precipitancy which, if exercised on any administrative topic, would have won them laurels for their promptness.

When taking up our pen we were inclined to speak a little more unreservedly on the subject; but as we are anxious to give fair play to all, we invite the opinions of those who feel aggrieved. Messrs. Young and Mackenzie have had their say, and they are fully entitled to set themselves right before the public if their position is misrepresented.

What have the other competing architects of the "Northern Athens" to say upon the subject? They are now called upon to speak, and they will have full liberty, as far as we are concerned, to prove that they have a substantial grievance.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—We have just read with much surprise in your issue of the 1st inst. an article headed "Belfast Architectural Competition," in which our position with reference to the new school building for Belfast Workhouse is much misrepresented. To your first proposition, qualified by the words "if it be true, as stated," we take no exception; but then without any qualification, and assuming as true an *ex parte* statement, you proceed to say, "it appears, however, that they were subsequently allowed the liberty of amending their plans so that they might be in conformity with the original conditions." To these statements we give the most direct contradiction. Our original plans, lodged on the 1st August, complied fully with the conditions issued by the Board of Guardians, and on 27th August were selected by a vote of 14 to 2. On these plans being submitted to the Local Government Board, several suggestions were made, involving additional accommodation beyond the *original conditions* of the Guardians. The plans we have furnished on the 12th ult., at

the request of the Board, and to which you refer, embody this additional accommodation, but required no alterations to make them conform to the *original conditions*. After what we have stated above, we have only to add that we think it unnecessary to offer any criticism on the remainder of this article, which obviously turns on the truth of our statements. We hope you will find space for this letter in your next issue, and oblige yours, &c.,

YOUNG AND MACKENZIE.

"THE PHILOSOPHY OF THE LOWER CLASSES."

At the inaugural meeting of the Trinity College Philosophical Society, the president, Mr. R. A. Frizelle, devoted his address to the subject of "The Philosophy of the Lower Classes—its Natural Tendencies and Right Cultivation." The address, as a whole, can be commended for the spirit of sympathy it displays with the condition of the working classes. We are glad to see the Philosophical Society taking up such questions in a broad and liberal spirit, and calmly discussing them. The relations that exist between the employer and the employed are not at all what they should be. Instead of mutual confidence and kindly feeling, there is too often antipathy and antagonism. The one employs a man because he requires his service, the other works because he needs must to live. One strives to get as much labour out of the worker as possible, and the other pretty often, if he is unprincipled, endeavours to do as little as he can. The employer keeps at a distance too often from his workers, and when he does visit them their estimation of his character wisely improves. There is a sense and feeling of superiority on one side, and of inferiority on the other; and in many instances, though there is not much difference between the education of the master and the man, yet the coldness and distant reserve become the more marked. The future of education has something more to achieve than inculcating scholastic knowledge. It has many selfish barriers to break down that keep men from communion and kindly intercourse with men. It has to teach that we all are brothers, no matter what our position, and that it never derogates from a man's dignity, no matter how high his elevation, to be on friendly terms with the humblest workers in the field of labour. We give the principal points in Mr. Frizelle's address:—

I have to open the subject chosen this evening, "The Philosophy of the Lower Classes, its Natural Tendency and Right Cultivation," the reason of which choice may be briefly told. The title of this essay presents for consideration three aspects of the great social question—first, the philosophy of the lower classes; second, the results necessarily springing from its self-guided workings; third, counter results obtainable for its right cultivation. Simply through lack of better has the term here been used to denote that eager searching which the lower classes are at present making to discover all the truth, if need be, respecting the facts of their position. What facts? Poor folk are often hungry, often ill-clad—do they raise, however, further inquiry than the "wherewithal to eat and to put on?" Picture for a moment the case of an ordinary working man. Tom Price is a fairly industrious artisan, earning the usual wages of his class. He rents a room in one of the narrow back streets near the big factory where he is employed. To invade Tom's "castle" many hindrances must be overcome. The visitor is obliged to struggle down the street, through dirt and offal of every description, perchance receiving, each half-dozen yards he goes, occasional salutes from the upper stories, and none of the politest kind. Nothing good appears about the place. The light is bad, the smells are bad, the sights are bad, and of bad men and women "not a few." Upon groping up a rickety staircase the room is reached. Here Tom, Mrs. Tom, with six younglings, live, and a close fight enough for life is it; to them the getting bears small proportion to the giving, and great the difference betwixt the paying and "the pay." Sometimes on Sunday afternoons the man rambles off towards the fashionable suburb where the grand folks dwell. His employer owns a handsome villa there; well does he know the place, tall trees and gay flowers grow around it. Of rudest sort is Tom's learning, still he has a mind, and can't help odd thoughts darting

up into that mind now and then. Of late the same thought has almost daily risen therein and will not be kept out—"How comes it, this governor of ours has plenty and to spare, is carried in soft-cushioned chariot, and lodged in a golden house, while my mates and self, who help to make him rich, aye, and without whom he could not be rich, must pass our days in wretchedness?" Then follows generally the fiercer after-thought—"Why is it, in the name of God's justice, for they tell me the great God is just, that there are the few rich and the many poor, that while the ten should seem so brightly to be blessed, the hundred are so darkly cursed?" To what conclusion his rough logic leads not now concerneth us; may not, however, an existence be granted in the breast of Tom, and thousands such, of the higher demand—"Why am I thus?" than the animal craving merely, "How am I to feed?" Watt's invention of the steam-engine (I can use no lower term) was the birth-day of our present manufacturing system, the introduction whereof has so plainly broadened the once faint demarcation line dividing "Capital" and "Labour"—a result, remember, of sloth, not necessity! With the establishment of steam-machinery a new state of things burst in with terrible swiftness upon the old, easy-going English life, requiring from the hearts and hands of that 18th century what preparation they could make to meet the change. But those hands were palsied!—those hearts were dead!—for with what has proved a wondrous blessing to this land of ours, a thousand giant ills have been bequeathed, to rid themselves of which is taking, and will take, all the zeal and love the children of this age can give! Stirring persons, possessors of even a little capital, seizing the more favourable opportunity for getting wealth afforded by the introduction of this new power into manufacture, started factories in all directions. Wherever these arose, the petty villages surrounding them soon gathered into large population centres; because, as trade prospered, and the demand for labour consequently increased, thither flocked continually the country people, drawn by the prospect of higher wages, or the hope of in some way bettering themselves. This crowding together brought many evils—dear bread, bad lodging, and, far worse, mournful selfishness of men. In the blind struggle for gain that followed, none would act his brother's keeper—each should fight for himself or not fight at all. Hence came it that but the few wise succeeded, while the many unwise failed, becoming in their failure servants to the wise. Dark and lasting did the issue prove, nor sought the losers to recover their loss. Ah, no! they looked on their lot as quite natural, caring only now, they simply said it, "to get along." Thanks to the stupid greed of a most merciless masterdom, misery and want rendered their existence a sad one; both, however, they silently accepted with the thought, that "God meant both for such as they." With the French Revolution a rapid change appeared. Then breathed there, as it were, a magic breath upon the slumbering life of the lower classes, awakening that life to newer being. For a first time began the poor man to think—"God did not mean want and misery to be for him," and with the dawning of this latter sentiment, an earnest inquiry on his part into "the wherefore" of his sorrows commenced as well. This brings us to consider, secondly, the "natural tendencies" of such inquiry. We are met by no difficulty here. The masses make not any secret of their grumblings. In rough and ready fashion have they found an answer to that "wherefore," and ere this expressed it in none of the gentlest or the sweetest tones. "Our position," say they, "is a mockery to civilisation; the society which countenances it must be rotten." The judgment has gone forth accordingly, "Let us pull that society to pieces, and set up in its place a fairer order of things!"—a sweeping fiat. Yet examining the same as formulated in those two principles, ever now so boldly urged by its supporters, shall we not find it in the end the only conclusion perhaps a poor man's mind, left to self-guided action, can draw from the facts whereon it is forced to reason. These principles are—(1) antagonism to religion, (2) antagonism to capital. In this Christian land of ours during the last seventy years and upwards have the masses of our people been crying out to us—"We are hungry, feed us; we are naked, clothe us; we are ignorant, teach us; ye that have the light, 'oh, let us in, that we may see the light!'" Yet, almost to this very hour, the sole answer has been returned—"Ye cannot enter now!" Do we marvel then to mark around us faces "gathering blackness," or to hear the defiant murmur—"Christian priests and Christian people, you would have us accept your Christianity, and worship your Deity; we see no beauty therein that we should desire it, and who is your God that we should obey his voice?" Still this anti-religious feeling, despite the bitterness thereof, lacks real importance. But whence has so fierce hostility to

capital arisen? Looking back over the past of manufacture, one thought must press uppermost in the candid mind—capital has done little to recommend itself! After speaking at considerable length on these topics, the President concluded as follows:—A brief conclusion, and I have done. To these proposals over-practical persons may cry—"Educate the lower classes, rather, improve their dwellings, and no necessity will demand so ornamental but expensive a philanthropy." This cannot be granted. Allowing the vast importance of sanitary and educational measures—which I have been desirous to supplement and not supplant—we are bound at the same time to remember these will never solely gain for us the affection of our poorer brethren; for may they not say to us, and judge ye with what truth, "You, the upper classes, have taught us, you have given us better food and brighter lodging—nor do we thank you; commonest charity, a common zeal on behalf of your own well-being, wring from you a tardy justice in this respect." Should we, however, bring them to see in all our efforts to promote their happiness a more ordinary interest in themselves, an interest prompted not by duty but by love—hereby shall we obtain their gratitude, and right brotherly gratitude as well. Therefore, though eager to secure a strong *utile* element in the education of "the people," let not the *dulce* be omitted, for while the former may sharpen their intellects, the latter alone can win their hearts. It is also said perhaps, "You lay before us no extremely novel plans, and seem to require merely further adaptation and extension of already existing institutions to satisfy a larger want." More than "adaptation" and "extension" surely! I have sought the introduction of a newer spirit beneath the older forms—the acceptance of a principle hitherto almost unrecognised in schemes for elevating the humbler classes—the spirit of brotherhood, the principle of co-operation! The poor are neither slaves nor babies, to be whipped into compliance or dandled into smiles. They are fellow-citizens—they are men; and strenuously do I believe that in all endeavours for their benefit to prove successful, they should be as such respected. Gentlemen of the Philosophical Society—since to you my closing words shall be addressed—forget not this urgent truth! Naturally is it the desire of each one of us to venture, when occasion calleth, a feeble trial even, towards lightening the darkness and lessening the sorrow which for so long have clouded the life of the toiling masses. If that desire is honest—and we seek in real earnest to render these masses rationally obedient to the social law, neither the dependent vassals nor independent foes—we must come to them, as they cry for help from the depths of misery and anguish with that "exceeding great and bitter cry of theirs"—come, not as condescending patrons, but as brothers; fully gaining their confidence by fully admitting them into ours, and making the task of their regeneration (however the same may be essayed) a common work between ourselves and themselves; being very certain should we attempt it otherwise, disappointment only will mock our efforts, and disaster crown our toil.

THE SOCIETY OF ARTS.

AT the one hundred and nineteenth session of the Society for the Encouragement of Arts, Manufactures, and Commerce, the opening address was delivered by Major-General F. Eardley-Wilmot, R.E., F.R.S., chairman of the council for the ensuing year.

The first portion of the address was an allusion to the loss the society had sustained by the death of the following members who died during the past year:—Mr. W. Bridges Adams, Mr. D. R. Blaine, Sir F. Crossley, Colonel Sykes, Mr. Brassey, Mr. Westmacott, Mr. Thos. Howard, Mr. Joseph Pease, Mr. J. Platt, the Earl of Lonsdale, Mr. J. Stansfield, and Alderman Hale.

A considerable portion of the address was devoted to the food question, and the successful labours of the society in respect to its commercial development. The council and the food committee still look forward to the early solution of the problem in Australia or elsewhere—How to preserve meat fresh and in carcase during its transport from the port of shipment to the markets of this country. The economical production of ice or its equivalent of cold has hitherto appeared to be the chief obstacle to the realisation of the desired result. When the investigation began, some six or seven years since, the quantity of ice produced per ton of coal consumed did not amount to more than four or five tons, and the displacement of cargo on ship-board as excessive; but by recent improvements in the processes of evaporation and condensation, the quantity of ice or its equivalent has been raised to 15 or 20 tons. It has been reported within the last few weeks that the difficulty in the way of the economical production of ice or its equivalent had been sur-

mounted in Australia, and that cargoes of fresh carcase meat have been shipped from Australia to New Orleans, and preserved fresh during the voyage, notwithstanding that the normal temperature of the atmosphere ranged as high as 90 deg. The council hope to learn that the statement is borne out by fact, and to find themselves in a position to award the prize so long since offered, a prize which they have now the pleasure of announcing has been increased to £100, by a further donation of £30 by Sir W. C. Trevelyan; to this also will be added the society's gold medal.

Great changes have already been made during the past two years in relation to the structure and use of our common roads, and long and important discussions have, from time to time, taken place in this room as to the expediency of introducing tramways on the roads of our principal cities and towns. The question of expediency has now been settled by the fact that tramways have been introduced, and are at work in London and in many other parts of the country, and some attempts have been made to combine the system of tramways with an improved construction of the road surfaces themselves. Much, however, still remains to be done before we shall attain to a perfect combination of rail and road surfaces. Asphalt, tar-concrete, wood, stone-pitching, macadam, and iron have all been tried, separately or in combination with the iron trams; but until we obtain a good durable surface, capable of general and economical application, we can, it is to be feared, do but little to improve the cleanliness of our streets and roads.

The questions of the surface-covering of roadways, carriage-ways, and foot-pavements, involve those of the economy of tractive force, and also sanitary questions—as to the dust and dirt produced, and the means of cleansing, which have yet to be determined for the guidance of Local Administrations. In reference to these the Council has voted a sum of money for the determination by a dynamometer of the different tractive forces required on different sorts of pavement—the old granite pavements, boulder and macadam, and wood, and the different species of asphalt pavement. Our member, Mr. Amos, who has had great experience in the use of the dynamometer, has liberally undertaken to conduct these trials for the society. The new and improved machine to be used in the experiments is now completed. The investigation, being confined to the ordinary conditions of roadways in towns, presents few difficulties, and is likely to be attended with more correct results than if an attempt were made to determine the larger question of draught upon all surfaces and declivities. Should the system of asphalt prevail largely, we may hope for a very great improvement in the comfort and convenience of omnibuses and other public carriages.

The council have also taken steps to obtain analyses of the mud produced by the concussion of vehicles on the different sorts of pavements, which may be said to be analyses of the different sorts of dust generated by vehicular traffic, and inhaled by the population, as well as spread over their skins. An analysis of mud from the old granite pavement in the city gave more than 50 per cent. of horse dung, 17 per cent. of abraded iron, and the rest a mixture likely to be conducive to the disease of the tuberculous organs, so widely prevalent amongst the population. How this composition is effected by the percussive force needed on the several descriptions of pavements may be shown by analyses which Professor Frankland has promised to make at the College of Chemistry. Corresponding experiments are promised us from Paris, to be made at the Arts et Métiers, by Mons. Tresea, of the institute.

The president here took occasion to refer to a bequest by the late Mr. Thomas Howard of £500, which the society has recently received, and the interest of which is to be applied "for the purpose of presenting periodically a prize or medal to the author of a treatise on the properties of steam generally, or any of them particularly, as applied to motive power, or it may be of air or permanent gases, or vapours, or other agents so applied, or to the invention of some new and valuable process relating thereto." The council has accordingly included in the list of premiums which it is preparing for issue a prize in accordance with Mr. Howard's bequest, and it is to be hoped that the attention of men of science, engineers, and others will be directed to the solution of the problem, how a motive-power engine can be constructed so as to admit of its being used as a tractive force on the tramways of our common roads without creating a nuisance, and with safety and advantage to the public generally.

Referring to the question of telegraphs, the president said—Had the conclusions enunciated in the discussions of the society on the expediency of the adoption of telegraphic communication as part of the postal system of the country been acted upon when attention was claimed and due for examination

and action, an immense sum of money would have been saved to the public, who might by this time have had the advantage of sixpenny telegraphic rates, such as those long enjoyed, with immense advantage to arts, manufactures, and commerce, in Switzerland, Belgium, and Germany. The same conclusions had, it appears, been formalised and presented for attention within the department itself, but without effect. Now, every year's inattention and delay may be said to have cost the public not less than half a million of money, until the adoption of the principles in question, as respects the inland telegraphs. The identical principles are applicable to the ocean telegraphs, and it is to be represented that there is a similar large cost accruing during the delay of the adoption of those same principles, an adoption which, if we are to keep pace with continental states, may be declared inevitable. It will be remembered that it was represented that the government could do what trading companies could not do; that the government could utilise numerous existing postal offices, and an immense postal service; that the government could make extensions of stations with a profit, or at the cost of the service, which the trading companies could not do without loss; that the government might make reductions of tariffs, and sustain temporary reductions of income, which could not be done by trading companies; that the government, by unity of management as well as by utilising existing establishments, could effect savings which might be divided between the public and the shareholders.

The council have reason to hope that the actual establishment of national scholarships for music, to be competed for in many of the counties of the United Kingdom, will take place in the course of the ensuing year.

The action of the society in respect of improving the convenience and accommodation of steamers employed in the channel passage has stirred up a great amount of feeling in favour of the object; and this not only among the general public, which suffers so much from its horrors, but among those connected with and interested in the existing arrangements. It is hoped that, without waiting for the long-talked-of improvement of the French harbours—by the parliamentary notices just issued there appears one by the South-Eastern Railway Company, to empower them to raise capital for the improvement of Boulogne harbour—much may be done in the way of general arrangement, and ventilation, and shelter, that will materially add to the comfort of passengers. The council, by special invitation of one of their members, Mr. Bessemer, visited that gentleman's house on the 9th inst., to witness a series of experiments made with a working model of his invention for overcoming the effects of the motion of vessels at sea. The success which has already attended Mr. Bessemer's endeavours to effect improvements in various branches of industry leads to the hope that he will ultimately succeed in accomplishing the object in view.

Through Sir William Bodkin, from a gentleman who does not wish his name to appear, the council have received the very liberal offer of £500, to be used in such a way as they may consider best, for some means of economising the use of coal for ordinary domestic purposes, without diminishing its efficiency. The great rise in the price of coal has again brought this question more prominently before the public, and the council cannot but express their admiration of the practical philanthropy which has urged a private individual to contribute so handsomely towards an attempt at its solution. It is not intended to entertain any proposals which are suitable only for the mansions of the rich, or have relation to cooking for large numbers, but rather, taking a room as the place for experiment, to offer prizes for grates suitable for existing chimneys, which shall fulfil the conditions of warming and ventilating, or of cooking in combination with these. But though thus inviting the manufacturers of grates, among others, to compete, it is obvious that any widely-spread and real improvement depends mainly on the designers and builders of houses. Year after year we hear of the same result, owing to the extravagance and waste of valuable material, in producing a miserable substitute for warmth and comfort in ordinary dwellings, and year after year we see the same type of enormous fire-places and chimneys, in many cases constructed without even the application of the form which experience shows to be the best, rising up on every side. However much we may hope that builders will, some day or other, have the courage to strike out a new line altogether, we can only at present advise, with regard to the money entrusted to us, that it be awarded in connection with the arrangement of houses already built, and that the improvements should be of such a character that the dwellings of the many shall be able to profit by them.

In conclusion, the president said that our country is passing through another phase of its history, a

period of change which cannot but be deeply interesting, and ought to be full of hope for the future. Manufactures in which this country stood for many years predominant and almost alone are now being produced by other nations. Coal and iron, the raw materials of industry and wealth, are rising in price at home, while they are being more abundantly produced abroad. Educated skill is acknowledged to be an important element in commercial success and national character. It behoves us not to rest in past success, but that our members should do their utmost to help forward every class of society, and to unite them in the one common object of social improvement. We are fortunate in having amongst us men gifted with those gifts of intellect, wealth, or enlightened philanthropy, in the energetic use of which they can advance the cause of national prosperity, and bring blessings to themselves and others. Let us hope that the coming session may fulfil the earnest wishes of the council in these respects.

THE DUBLIN SEWAGE AND LAND RECLAMATION BILL.

THE great meeting held on the 11th inst. at Malahide, at which the principal proprietors, landholders, and residents in the district of Fingal attended, to oppose the above bill, will, no matter what may be the result, effect much good. Promoted and nursed by members of the Corporation as the bantling and offspring of the Main Drainage Act, the bill proposes to accomplish a work by means which will prove disastrous to the city in more senses than one. To a Sewage and Land Reclamation Bill, *per se*, we have no objection to offer, when projected properly and begun with honest motives. Looking, however, on all the surroundings of the present measure, we do not wonder that it should beget an earnest opposition.

The meeting, which was held in the ball-room of the Royal Hotel, was presided over by Lord Talbot de Malahide.

Messrs. Mark Perrin, John Jameson, J.P., and Chas. H. Dillon, were appointed honorary secretaries.

The chairman said that, before any resolutions were put to the meeting, he wished to make some observations. They all knew that their old enemies, the Corporation of Dublin, were again in the field. Last year the Corporation had tried to saddle them with a great portion of the expense of the city bridges, but they had defeated them. The Corporation might as well have asked them to contribute to their banquets. This year the Corporation had another scheme. In order to get rid of a certain inconvenience the Corporation proposed to carry all the filth of Dublin under the noses of the inhabitants of that locality. It rested with them to say whether they would sit tamely under such an invasion of their rights. With reference to the merits of the case, they were all aware that the Corporation of Dublin were anxious to get rid of their sewage, and, if possible, to make a considerable profit on the transaction. As to the general question of using sewage for irrigation and for general agricultural purposes, he did not profess to give an opinion. Many persons fully competent had assured him that they were convinced that even as a money speculation the scheme would be a failure. There might be places within reach of populous towns—commons, or heaths, or hogs—which might be advantageously treated by sewage, or without creating any disturbance or annoyance to any individual. Such was not the case here. The Corporation had selected one of the most thriving districts of the county of Dublin for making their experiment. Their land, thank God, was good and rich, and did not require that kind of advantage in order to make it produce crops, and they had other means for carrying out their agricultural operations. Perhaps the next important question connected with the matter was in reference to their harbour. It was proposed by this scheme to carry out works which he believed would undoubtedly have the effect of closing the three principal small harbours in the district—namely, Baldoyle, Malahide, and Rogerstown. These little harbours were of very considerable advantage in the way of accommodation to the neighbourhood, not merely to the coast, but even many miles inland. They gave accommodation for the coal supply, and also a certain amount of coasting trade, and there was a considerable fishing population

depending upon some of those harbours. He could not believe that the High Board of Admiralty would sanction this outrageous violation of every public right. It was not the first time that an attempt had been made to pass a scheme of this kind. On two different occasions—once, he believed, in 1855, and again in 1861—it was attempted to reclaim the estuary of Rogerstown. On those occasions there was no question about sewage, it was merely the question of reclamation, and, therefore, open to fewer objections than the present scheme. The government professed, and he believed were sincere in the profession of their anxiety to cherish and to increase the public fisheries of Ireland; and, surely, if they were sincere, they could not assist a scheme that would tend to render fishing impossible around this coast. It certainly was an unfortunate thing that they should be thrown upon the defensive in a matter of this kind, but they knew that they led a stirring life who had such neighbours near as the Corporation of Dublin. He was not disposed to enter much into other points of the question. He was not disposed to say anything harsh of the promoters of this bill, but he must confess he was surprised to hear it reported that one gentleman of position and influence in the country had been pressed to become a director in the new company. He was truly grieved to find that Sir Arthur Guinness should have allowed himself to be persuaded to give his assistance to this sordid scheme. For his own part, he entertained very much the same opinions with reference to Malahide that Sir Arthur Guinness had expressed so eloquently with regard to St. Anne's; and he must confess that if the scheme were carried out he felt convinced it would be so injurious and such a nuisance to himself and the neighbourhood that he should consider very seriously whether he should not become a permanent absentee. He had made great sacrifices there; he had incurred a good deal of expenditure in order to improve the neighbourhood, and to promote the comfort and the interests of the inhabitants, and it would be with a broken heart he would leave that scene, but he could not continue in it if all his prospects for his property, and the comforts of his neighbours were blasted by this measure. However, he was more sanguine—he was very sanguine that Irishmen would combine for anything that was good—they would combine on this occasion, and by a strong and united pull they would overthrow the bill. There was only one point of detail which he should strongly recommend, and that was that no time was to be lost—that resolutions should be got up from the different localities that would be more or less affected by the proposed scheme, and that local committees should be formed, who would be able to give most valuable information, and materially assist the general committee in carrying on the opposition to the bill. If they were united, if they were energetic, in this work he was sure they would succeed, "As true as the devil's in Dublin city," to use an excellent old Scotch proverb.

Several resolutions condemnatory of the scheme were passed, and a guarantee fund commenced, to which large sums were promised in the room. The secretary of the Dublin and Drogheda Railway said that his directors would render every assistance in their power to prevent the passing of this measure. We have not space in our present issue to enter into further particulars concerning this bill, but we shall return to the question possibly in our next.

NEW ROMAN CATHOLIC CHURCH, KINGSCOURT, CO. CAVAN.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—In your issue of the 1st instant there appeared a letter from Mr. Hague, the architect of the above-named church, in which he "discredits" the observations made by me in previous issue as to the workmanship of the building. Permit me to say a few words in reply. In doing so I shall not adopt the rather uncourteous style of Mr. Hague, who, before he is in a position to disprove my statements, jumps at the conclusion that they are the "result of want of knowledge."

If (as he states) he has "not taken the building off the contractor's hands," it will, *perhaps*, be all the better for his own credit's sake, as well as for the advantage of the parishioners and the subscribers to the building. I say perhaps, for all the after-"paring" that can be accomplished will never remedy some of the arches, which want a bit on instead of a bit off. But why allow after-paring at all? If a thing is worth doing, why not do it right

at first? Was it not the duty of the clerk of works to see that as the building progressed the work was properly executed? Previous to the date of my letter I was informed that the Messrs. Kelly had *finished* their contract, and hence I consider I was not premature in my remarks. Let us suppose a visitor to this building, after discovering some of its eyesores—could it be surmised by him that the contractors had still to come back from Granard to make them right, by "paring," after the scaffolding had been removed from the exterior for several months?

With regard to the battering of the south-wall gable, I could, if necessary, and that your space permitted, explain without difficulty the simple plan I adopted for "sighting" it.

Mr. Hague says that my observations respecting the projection of the eave-gutters are unworthy of his notice. This may be so; but remembering that "attention to little things is the true road to success," and admiring as I do the proportions of this building, I considered it no harm, as one interested in architecture, to make the remark condemning what might or might not be the taste of Mr. Hague.

In conclusion, let me assure him that no unworthy motives prompted me to notice his work, although to him they may appear "gravely suspicious."—Yours, JEAN DE VEY.

[It is not desirable that any further correspondence on this subject should appear in our columns.—ED. I. B.]

THE GAS COMPANY AND THE CORPORATION.

THE shareholders of the "Alliance and Dublin Consumers' Gas Company," at an "extraordinary" meeting held on Thursday, passed unanimously the following resolution:—

"That we hereby assent to the proposal of the Corporation, the heads of which have been now read for our approval, and we do hereby authorise our directors to attach the common seal of the company thereto, when settled by counsel, and to take such steps as they may deem expedient to see same carried out in good faith by the Corporation, and embodied in the bill which the Corporation are now promoting in Parliament."

The following are the heads of the bill to be submitted to Parliament:—

"That all the share capital be called in and paid up.

"That the whole of the assets of the company be transferred to the Corporation on the 1st July, 1873.

"That, in consideration thereof, the Corporation shall assume all the debts and liabilities of the company, including the mortgage bonds on the debenture debt of £147,500, and that the bondholders be amply secured by a first charge on the whole property so handed over.

"That the Corporation shall pay a sum equal to 6 per cent. per annum on the entire paid-up share capital for distribution amongst the shareholders half-yearly.

"That the Corporation shall, in each half-year, pay to the holders of shares, to be drawn by lot (not less than 250 shares half-yearly, and not more than 1,500), a sum equal to £13 10s. per £10 share.

"That if the Corporation desires to call in a large amount of shares, they shall pay for said shares at the rate of £14 per share.

"That the Corporation shall receive the annual interest by a special rate on the property of the city, which rate shall be compulsory by mandamus and appointment of a receiver.

"That all the cost of registry of transfer of shares and of half-yearly drawings be at the expense of the Corporation.

"That arrangements be made for compensating such officers as shall hold offices under the company that may be abolished by the Corporation."

Citizens of Dublin! are you prepared to ratify this "fair and honest" (?) bargain made betwixt "wise and prudent men" of your Corporation and the directors and shareholders of the "Alliance"? Do you expect that after the 30th day of June next you will be supplied with 20-candle gas at 4s. 6d. per 1,000 feet?

A meeting of citizens should immediately be called for the purpose of expressing their views upon a matter in which their pockets and their interests are involved. Our present burdens are heavy enough, but what will they be if £1,000,000 more is to be entrusted to the disposal of the Corporation?

THE FOUNTAINS IN TRAFALGAR SQUARE, LONDON.

THE fountains in Trafalgar-square, standing in the midst of a sooty waste of cracked asphalt, compared with the fountain of the Marche des Innocents (Paris), might form rival illustrations for a "Tale of Two Cities;" the one a city of marble and flowers, the other a city of stone, and brick, and soot. How is it that the black and always bleak-looking waste about the fountains in Trafalgar-square—bleak-looking even in the summer sunshine—is allowed to remain in that desolate condition which excites the astonishment of all foreigners, knowing as they do, from the continual boastings of our national vanity, that we consider it "the finest site in the world?" One could understand it in Berlin, where professorial and Yunkerian Schweinkopfs rule over the absent beauties of the ugliest and dirtiest city in the world; but in London, the stronghold of common sense, the unwearied persistence in the principle of "how not to do it," is incomprehensible.

What can the honourable chairman of the Board of Metropolitan Embellishment (we must surely have such a board) be thinking about or avoiding thinking about? The deeply, darkly, drearily, dull expanse remains unbrightened, except by the occasional reflected gleams from the pools and puddles which in the many "dismal hollows" of the black asphalt relieve the monotony of the scene after heavy rain. We are indeed an inscrutable race, of an inscrutability which is fabulous—fabulous because it illustrates that truly national fable in which the tortoise outstrips the hare in the race. We are decidedly the tortoise in the race of nations and civilization—so slow, so far behind, and yet so sure to win in the long run—the long, long run which leads to the true winning-post of peoples. The great British tortoise always wins at last; and so eventually in the far-off future time, we are safe to see the shrubs and flowers of Trafalgar-square eclipse those of the Place du Louvre and the flower market of the Madeleine, and even the bosquets of the Champs Elysees—just as we have lived to see the Thames Embankment eclipse at last all the finest embankments of city river shores on the continent.—*Garden.*

ROYAL DUBLIN SOCIETY.

THE second evening meeting of the session will be held on Monday evening next. Prof. MacAlister will deliver a discourse on the "Anthropoid Apes," and describe the magnificent specimen of orang-outang recently added to the society's museum.

NOTES OF WORKS.

A glebe-house is being erected on Leinster-road west, for the Rev. W. B. Asken, incumbent of Harold's-cross Church. Mr. Joseph Maguire, architect; Mr. J. Jackson, builder.

A neat gate-lodge has been completed near the deer park, Howth Castle, the seat of the Right Hon. the Earl of Howth. Mr. Joseph Maguire, architect.

MAIN DRAINAGE IN TWO ASPECTS.

At a public meeting held in Kingstown on Thursday evening to oppose the passing of the new sewage bill, Mr. Peter Madden, C.E., said:—

"A great proportion of sanitary problems of the present day were bugbears. Kingstown was one of the most salubrious towns in the United Kingdom—its death-rate was very low, only 14 in 1,000—and it was well drained by natural means. Besides, it possessed one of the finest intercepting sewers of any town that he knew of, constructed by government engineers, and having an excellent outfall. This sewer might require prolongation, but this could be done at a trifling expense, if main drainage were the object in view. However, it was not main drainage or sewerage was thought of, it was main drainage upon the pockets of the ratepayers. What

did a London engineer care about an expenditure of £100,000? It was too much the habit to run to London on every occasion for engineering advice when it could be obtained from as well-qualified men in Ireland. There were other advantages in reference to sewerage which Kingstown exceptionally possessed. The proposed scheme provided to bore through a considerable distance of primeval granite a sewer 4 ft. 6 in. by 2 ft., the cost of which would be enormous. Again, the bill did not fix a point of discharge for the sewage, which might be effected, if the promoters pleased, opposite any of the fashionable terraces. What were the resources of Kingstown to meet the enormous expense of this measure? They were the hard-earned property of industrious men, which would be taxed to an undue extent."

SOMERSETSHIRE V. CONNEMARA.

A WRITER in our contemporary, the *Builder*, details the frightful manner in which the English labourer is housed in certain districts of Somersetshire. We hope the "lords" will take the hints given, and quickly make a change for the better. He thus speaks of Chinnock:—

The only portion of these cottages now inhabited consists of two rooms, a kitchen below, and a small bedroom above, whose windows are in the gable-end, with entrance-door up a passage. The height of the kitchen is about 6 ft. 3 in.; breadth, a little over 9 ft.; and length, 13 ft. The bedroom has a ceiling broken through in three or four places, through which the rain from the thatch above trickles down the walls. It is only in the central part of the bedroom a person of ordinary height can stand upright. There is hardly 3s. worth of property in the sleeping apartment in the shape of bedding. An old tick, with scarcely any stuffing, and a few rags, composed a bed, spread upon floor in one angle of room, and a wretched frame—the caricature of a bedstead—occupies another corner of the apartment. A few winding steps, scarcely sufficient in breadth for one person to pass up, lead from the kitchen to the bedroom, the sole sleeping-apartment of an aged mother of eighty-four years, an unmarried daughter of forty, two children, and a grown girl, who acts as a help in gloving and other work. The aged mother is an imbecile, and is otherwise afflicted. The average earnings of the household throughout the year could not easily be determined. Sometimes 5s. a week, sometimes 7s., at other times 2s. 6d., and at times nothing. For these two rooms, the last corner of the two cottages which now affords a refuge for miserable creatures, £3 have lately been obtained for the year's rent. We must be just to the landlord, who is a noble lord to boot: he allows the use of another small room on the opposite side of the entrance-passage, which is used as a workshop when glove-making is brisk; but we are in doubt whether the additional accommodation is wholly free or not. Our informant here was interrupted in his survey of these and the adjoining cottages by the owner's bailiff, who challenged his authority, not only to look within, but to sketch without; so the pursuit of knowledge was one under difficulties. Rags and semi-starvation mark the chronic condition of the people here and in the adjoining cottages along the roadside in the village of Chinnock.

OUR ILLUSTRATION.—NOTICE.

IN consequence of a failure in the production of our lithograph while at press, we are unable to issue it with this number.

HOME AND FOREIGN NOTES.

ASSEMBLY ROOM, KINGSTOWN.—In the course of observations made by Mr. Thomas Dockrill, as chairman of a recent meeting of ratepayers, he stated, by way of digression, "that he had been actively engaged in trade in Kingstown for thirty-four years, and Providence had blessed his exertions with success. As an acknowledgment of this prosperity he announced that from this night, during

his life, and during the life of his wife, he would not charge a penny for the use of the room in which they were assembled. He had built it and the cottage adjoining some years ago, and henceforth it would be given gratuitously for religious or charitable, scientific or literary purposes, without reference to creed, and not excluding any section of the community." This is liberality in its true sense.

Among the incidents of the late gas strike in London was one which is well worth recording. One of the first persons whom the gas companies made aware of the coming difficulty last week was the Postmaster-General. Orders were immediately issued from the Post Office for 2,500 candlesticks and something like a ton of candles. As a precaution against the increased danger arising from the use of candles as compared with gas, the floors were covered with sand, and buckets filled with water were placed under the sorting tables. A large staff of men and boys were employed as snuffers. These precautions had the effect of very considerably lessening the inconvenience arising out of the strike.

THE MEMBER FOR CORK.—Mr. Joseph Philip Ronayne, the new member for Cork city in succession to Mr. J. F. Maguire, deceased, was born at Cork in 1822. He is the youngest son of Mr. Edward Ronayne, who was a manufacturer in that city. The new member is a member of the Institution of Civil Engineers. In the early part of his professional career he was engaged for several years in hydraulic works in California. Lately his attention has been turned to public works, and he has had the contracts for the construction of the Cork and Queenstown, the Cork and Macroom, and the Clonmel and Thurles Railways.

Within the last twelve months sewage works were set in motion at Danzig, in Prussia, a town of 100,000 inhabitants. A company has contracted to keep the works in order for a space of thirty years, and for this service they have during the same period control of the sewage and possession of 2,000 acres of land. This land is two miles from the city limits, and is partly forest but chiefly a sandy desert, in which aforesaid nothing whatever could be induced to grow. Now mark the change. The pumps were started last May, 100 acres were irrigated once a week through the season, and the result has been fine crops of rye grass (which grew an inch a day) and potatoes and beet-root of enormous size. Deputations from various parts of Germany have visited the farm, and many of the large towns are proposing to follow so good an example.

FIRE AND WATER.—The *American Artizan* says:—Is it possible to build sure? Can a totally fire-proof building be made? To believe that this is impossible would be greatly to depreciate the mechanical and scientific resources of the age. Nothing can burn till heated to the temperature at which it combines with oxygen; the problem of fire-proofing will then be solved when we discover the means by which the temperature of combustibles can be kept from reaching the temperature of combustion. We can apply the most intense heat to steam-boilers without burning them. Why? Because each atom of water they contain is a swift vehicle to seize upon and carry away heat. Let us make up the partition of walls of buildings in a manner analogous to sectional steam-boilers, and no fire would be communicated from one building to another. A thing so evident should have attracted the attention of architects long before this. In this way, iron, which by itself is not a fire-proofing material, can, by the most economical use of water, be made to withstand the severest ordeal. The iron-enclosed water-spaces need not be more than 1 in. in thickness, and need never be subjected to a hydraulic pressure of more than 3 ft. or 4 ft. head. These walls can, therefore, be made of thin metal. They can be supplied with water from the common water-service, or from tanks placed at the tops of buildings. In case of fire, the turning of a single cock would supply them with water, and the temperature of the partitions could never rise above 212° F. till the water had all boiled away. In this way, not a tithe of the water now vainly used to extinguish such fires as those of Chicago and Boston would be needed to preserve a whole city.

This may be called a decade of excavations, and it would be strange if the site of Troy, or the spot which is believed to be such, were not explored. Dr. H. Schliemann began to dig there about a year ago, and his results promise to be considerable. In September last he came on what appeared to be the original surface of the ground. At about forty-five feet below the present level, there were found the ruins of a house which had been burnt, together with the skeleton of a woman, and her ornaments of gold, the bones of a child, and a vast number of tiles.—*Athenæum.*

AN INGENUOUS DREDGING MACHINE.—A powerful new iron twin screw dredger, built and engineered by Messrs. W. Simons and Co., was recently launched from the London Works, Renfrew. It is the property of his Highness the Khedive of Egypt, and is named *Ibrahimieh*, and it is intended for dredging operations in the East, under the directions of Mr. John Fowler, engineer, consequent on the opening of the Suez Canal. This vessel is of extraordinary construction, its draught of water forward being only a few inches, as it is designed to cut its own floatation, and projecting considerably beyond the bow is the bucket girder, armed with steel claw buckets, which after cutting the soil, conveys it to a novel and ingenious receptacle, from which the soil is ejected some distance on to the adjoining banks of the channel. The interior of the vessel is fitted with strong and costly machinery, some of which is of brass and steel, having the treble properties of dredging, propelling the vessel, and ejecting the spoil. The engines are on the compound system. This vessel, after being tested on the Clyde, will shortly proceed, under steam and canvas, to Egypt. On the adjoining launching slip is another dredger nearly completed, for England.

TO CORRESPONDENTS.

SANTAS.—The Dublin Sanitary Association has led to some reform in the matter, but they cannot be expected to perform the work of the Corporation. The latter body has got no shame, and it cannot be expected to feel it.

THE NEW STREET.—It was projected a quarter of a century since, and the subject is taken up whenever it is wished to impress the public with a belief that something is about being done.

THE CITY AUDIT.—The Government Auditor, Mr. Finlay, began his labours on the 12th. He will require vouchers to be produced for all payments, from scrivenerly to scavenging. A nice state of affairs, truly, was disclosed at a late meeting.

A BUILDER.—Concrete will admirably answer your purpose for the out-buildings. Try the experiment with one of the small cottages in brick and the other in concrete, if you can procure the use of the frames gratis.

A SUBSCRIBER.—Among Weale's "Rudimentary Series," published by Messrs. Lockwood and Co., London, there are some small volumes that may answer your purpose, varying in prices from a few shillings to twenty shillings. By communicating with the firm, they will send you a list of their works. Of the very cheap works, we would prefer not recommending you any particular volume. Of the better and dearer class of works on villas, cottages, and country houses, "Villa Architecture," by C. Wickes, containing a series of designs for villa residences in various styles; and another volume entitled "Cottages, Villas, and Country Houses," are very good volumes. The former includes detailed specifications and estimates, and is a very useful work for young architects or amateurs; the latter volume contains several designs and examples of cottages, villas, and country houses, with plans, elevations, and perspective views.

A LOVER OF ART.—Try the Royal Dublin Society School of Art for a session. Much, however, depends on your own energy.

CONTRACTOR.—We would not advise you to use sea sand, although the temptation is strong. In the outside boundary walls it will suit well enough for the work you describe.

ROYAL IRISH ACADEMY.—In the first volume of the "Transactions" there is a paper on the subject by Lord Charlemont, of 1782 memory. We may reprint the substance of it in an early issue.

ROBERT ARMSTRONG.—Some very clever contributions of pen and pencil were contributed to the first and second volumes of the *Dublin Penny Journal* by this writer. He was originally a house-painter, and lived a while at Kanelagh, and he was afterwards a parish schoolmaster at Raheny. He was well known to the late George Petrie and his co-labourers.

A STONECUTTER.—We are obliged to hold over your communication for the present.

T. O'N., CORK.—Many thanks. We have made room for your notes in present issue, and shall be glad to hear from you again. Many hundreds of our subscribers could follow your good example if they would only take a little trouble, and thus keep their brethren fully informed of what is being done in their several districts.

Several papers and answers must hold over till next year, or, to say it softly, till the New Year.

"A VISIT TO EPPS'S COCOA MANUFACTORY."—Through the kindness of Messrs. Epps, I recently had an opportunity of seeing the many complicated and varied processes the Cocoa bean passes through ere it is sold for public use, and, being both interested and highly pleased with what I saw during my visit to the manufactory, I thought a brief account of the Cocoa, and the way it is manufactured by Messrs. Epps, to fit it for a wholesome and nutritious beverage, might be of interest to the readers of *Land and Water*.—See article in *Land and Water*, October 14.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills.—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & Co., Homoeopathic Chemists, London." Also, makers of Epps's Cocoa, a thin refreshing beverage for evening use.

MANUFACTURE OF COCOA, CACAINE, AND CHOCOLATE.—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—See article in Part 19 of *Cassell's Household Guide*.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

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We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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1st & 15th
OF EACH MONTH.

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NOTICE.

The Proprietor of the IRISH BUILDER requests that all parties indebted to the journal will send their respective amounts before the end of the present month. Stamps received for small sums. Cheques and P. O. Orders to be made payable to Mr. PETER ROE, at the Office, 42 Mabbot-street, Dublin.

WAR DEPARTMENT CONTRACT.

NOTICE TO BUILDERS.
Office of Commanding Royal Engineer in Ireland,
Dublin Castle, 29th November, 1872.

TENDERS are required for Works to be done in Erecting Reading and Recreation Rooms at THE NEW BARRACKS at FERMOY, IN THE CORK DISTRICT.

Persons desiring to Tender for the Execution of this Work must leave their names at the Royal Engineer's Office, at Cork or Fermoy, on or before Tuesday, the 24th day of December, 1872, and pay the sum of Ten Shillings and Sixpence for the Bills of Quantities, which will be forwarded to each party.

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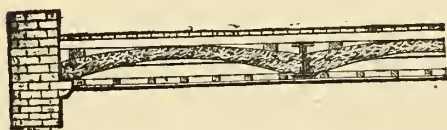
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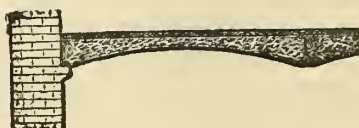
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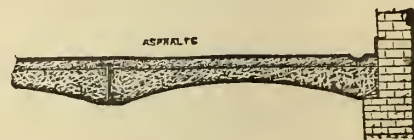
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